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A COMPARATIVE STUDY OF OFFENDERS AND NON-OFFENDERS IN THE CANADIAN ARMY, 1946.

W.R.N. BLAIR, B.A. (Alberta)

A thesis submitted to the School of Graduate Studies in partial fulfilment of requirements for the Master of Arts Degree.

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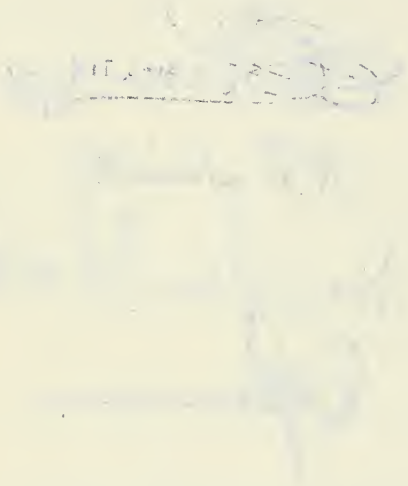

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I

INTRODUCTION

SECURITY CLASSIFICATION

This study was undertaken with the approval of the Department of National Defence on the understanding that the research data obtained and the final report on the project would be treated according to the military security classification "Confidential". (Appendix "B")

DEFINITION OF TERMS

The study was concerned with a comparison of samples of offenders and non-offenders in the Canadian Army during 1948. To avoid any confusion in the selection of samples, precise definitions of terms were provided. "Offender" was defined as a soldier who had committed an offence against military law and was serving a sentence in detention. "Non-offender" was defined as a soldier who had no record of any kind of misconduct during his service in the Canadian Army, Active Force, (the present permanent Army), and who had served in that force for at least one year. It was believed that the introduction of the criterion, the sentence to detention, would facilitate the differentiation of offenders and non-offenders, since the former would represent an extreme group.

THE PROBLEM OF THE MILITARY OFFENDER

It should be noted that a soldier is subject to both ordinary law, as a citizen of Canada, and military law. This study, however, was concerned only with offences against the latter, an entirely distinct code which governs the members of the Army and regulates their conduct at all times. The Army Act designates the forms of behaviour which are considered offences against military law. These offences range in relative military importance from, for example, treachery, to giving false answers at the time of enlistment. Punishments are scaled from death to forfeitures, fines and stoppages of pay. (23) The most common major offence of interest in connection with this study is absence without leave.

The cumulative total of offenders from the formation of the Canadian Army, Active Force, on October 1, 1946 to November 30, 1948 was 1818. Over the same period the Army varied in size from 14,000 to 17,000, approximately.

Numbers of offenders, considered as an independent factor, do not convey the magnitude of the general problem they present. The soldier who is absent without leave, or in detention, is a total loss to the Army. In addition, he represents a large overhead cost, with respect to his recovery (in the case of the absentee), trial, confinement to detention and, in some cases, discharge. In a survey made during the last war of a large sample at the Canadian Detention Barracks in England, it was found that 32.9% of the offenders were discharged after they had served their sentences. (7) The money spent on them in connection with their enlistment, training, transportation, food, clothing, equipment, shelter and medical care also may be considered largely a loss. Betts (3) in his report on a study of "incipient army criminals" stated that the case records of "moral casualties" (here defined as "offenders") in Army prisons indicate that most of their stay in the Army represents a loss. He suggested that this loss might be as high as the one calculated for psychiatric casualties in World War I, namely, $30,000.00 each.

The absentee presents a special problem. Apart from the loss he causes in terms of money, he leaves his position vacant thus adversely affecting his unit's efficiency at any time and, in time of war, probably endangering the lives of his associates.

Psychologists and psychiatrists often are able to identify probable "trouble-makers" at the time applications are made for enlistment. It is apparent, however, that many escape detection until they have committed offences. More accurate methods of personnel assessment are required if the problem is to be solved. If such methods were available it might be possible to reject applicants likely to become offenders or to at least identify them early and ensure that they received a fair trial, which could involve the application of specially conceived techniques of man management.

The problem of the military offender was considered sufficiently important to warrant systematic examination. This study represents an attempt to undertake that responsibility. It was believed that facts obtained about offenders, and in contrast - about non-offenders, might assist in improving selection methods and Army man management.

Before commencing the study, available literature, concerning similar studies conducted in military and civilian fields, was read with the view to obtaining some guidance regarding a logical course to follow. This literature will be discussed briefly in the next section, insofar as it is related to the present study.

At the outset it was assumed that the behaviour of the military offender could be considered analogous to that of the civilian delinquent or criminal. Influenced largely by Reckless, however, it was expected that this behaviour would be subject to individual variations due to time, place, other external circumstances and personal attributes or deficiencies. (27) It was believed probable, for example, that personal maladjustment, indicated by personality deviations, might tend to be associated with military offences to a higher degree than would be so in the case of civilian crimes. The high incidence among offenders of such military offences as absence without leave, drunkenness and insubordination, would seem to support that belief. On the strength of the assumption noted above, reports on studies of civilian crime and delinquency have been included for comparative purposes, in addition to studies dealing with military offenders specifically.

II

THEORIES OF CRIME AND RELATED RESEARCH

INTRODUCTION

The earliest theories of criminal behaviour were those in which crime and sin were closely identified. Moral philosophers insisted, at least to the early part of the nineteenth century, that crime was directly attributable to moral defects of the individual. They contended that man's destiny was in the hands of God and man's course of conduct was freely chosen by himself. They considered that no one need be a criminal. Anyone who became a criminal, in their opinion, was simply a morally bad man. It followed that little could be done about this situation except to punish the criminal, the severity of the punishment presumably being calculated to outweigh the pleasures he derived from his crimes. Such concepts naturally did not stimulate any scientific approach to studies of criminal behaviour. (30)

The doctrine of evolutionary biology, the discoveries of science and the increasing emphasis on determinism in the seventeenth and eighteenth centuries, brought into question such speculative generalizations as the early concepts regarding crime. Towards the end of the nineteenth century, there appeared another point of view which encouraged thought and research on the problem. Cesare Lombroso, an Italian criminologist, put forward his theory of a distinct criminal type, recognizable by certain physical irregularities. The phenomenon of criminality, according to Lombroso, was not due to inherited sin but to inherited biological constitution. Although his conclusions were based upon somewhat spurious observations, which would scarcely be admitted as scientific evidence today, they aroused other investigators to prove or disprove them or create other more satisfactory explanations of criminal behaviour. His conclusions accentuated, among other controversial issues, one concerning the relative influence of heredity and environment in criminality. The issue in its simplest form is generally regarded today as unproductive but some valuable evidence was discovered while it was being debated.

SINGLE VS. MULTIPLE CAUSES

Research to discover the cause or causes of crime is comparatively recent, dating back approximately one century. (30) Initially most investigators concentrated upon identifying the single cause of crime, acting of course, on the assumption that criminal behaviour was due to one cause. This approach perhaps can be understood on the basis of the historical background discussed briefly above. As single theories were demonstrated to be untenable and the complexity of the causes of human behaviour came to be realized, research into the causes of crime became popular. If any investigator dealt with a single factor and its relationship to criminal behaviour, at least during the past decade, he usually explained his position in terms of searching for one of the many factors presumed to be related to crime. (25) It is generally agreed now that criminal behaviour is the result of the operation of many factors, some of which are present in certain cases and some in others, the importance of each factor varying in each individual case. Where disagreement exists today, it is usually in connection with the importance to be assigned to individual factors. This disagreement is most apparent in the concepts advanced by extreme situationalists and constitutionalists. The former have appeared to make the most progress, probably because they have been more successful in eliminating unwarranted assumptions and in validating their conclusions.

CAUSATION VS. CONTINGENCY

Reckless contends that studies directed toward the discovery of causes have retarded criminology. He points out that this is unfortunate because the concept of causation is not too useful in the social sciences, due to the difficulty of isolating causative and contributive factors. He also suggests that a search of that kind assumes a relation between cause and effect, in his opinion a faulty assumption because it is never clear in human behaviour which is which. He recommends, therefore, that investigators deal with contingency rather than causation. From traits and conditions known to be associated with criminal behaviour he would calculate the statistical chances of individuals becoming criminals. (27) This study is directed toward that end, first, in attempting to determine what factors are associated with criminal behaviour and, second, to attempt to calculate what might be called offender "risks".

BIOLOGICAL AND PHYSIOLOGICAL FACTORS

HEREDITY

It is known today that criminals are somewhat more likely to have criminal brothers and sisters, or parents, than are non-criminals. The Glueck's found that 84.8% of the reformatory population of Massachusetts came from homes with other criminal members. (8) Results of twin studies by Lange in Bavaria (1929) and by Rosanoff and others in America (1934) are sometimes cited as positive proof that criminality is in large part traceable to heredity. There are some investigators, however, who point out that the factor of environment has been completely omitted from the studies. (1) Monographic family studies such as the Jukes by Dugdale (1884) and the Kallikaks by Goddard (1912) have also been submitted as evidence that criminality tends "to run in families". It is not possible to say, in respect of any of the above examples, however, whether the incidence of criminal behaviour is the sole result of biological inheritance or of the environment, which in the case of a family is shared by all to a considerable extent. The more general and, it is believed, reasonable view is that criminality is the product of both environment and heredity.

INTELLIGENCE

For a time it was thought that feeble-mindedness was an important characteristic of criminals. Goddard, for example, concluded that it was the greatest single cause of crime. (16) Studies since that time have tended to question that conclusion. Evidence concerning the incidence of defective intelligence among offenders, however, is confusing and inconclusive because different measures and standards have been used and also because of the doubtful validity of the theoretical distribution of intelligence test scores of the general population. (25) Zeleny, on the basis of 173 studies among 61,999 criminals, using the Binet test, reported that the percentage of the criminal population (3.8%), which fell below a mental age of eight years, was higher than the estimate of feeble-mindedness in the general population. He did not regard the results sufficiently significant, however, to conclude that feeble-mindedness should be regarded an important causative factor. (41) Sutherland in 1931 (34) and Tulchin in 1939 (38) concluded that the delinquent population does

not appear mentally inferior to the non-delinquent population living in similar conditions, or innately inferior to the law-abiding population in general. Hill reported on the basis of a sample of 1285 male offenders at a state reformatory that, while they were classifiable in the dull-normal group, they excelled on the average a group of men considered representative of the Army draft. (18) On the other hand, Brequet (5), working with a sample of 1000 cases in a reformatory, concluded that 10.1% were feeble-minded. Piotrowski and Hobbs (26) reported that there was a percentage of .75 defectives in the American Army in the last war but 21% of the general military prisoners were classified as defective mentally. They concluded that the chances of a mentally defective soldier committing a major offence were about thirty times those of a non-defective soldier. Studies of soldiers serving sentences in the Canadian Detention Barracks in England during the last war, however, failed to reveal significant differences in intelligence between the offenders and the general army population. (7) The view that defective intelligence is the most significant factor in criminality does not appear to be supported generally by the facts. Most investigators consider other factors to be operating and would conclude that low intelligence may be significant only in individual cases.

AGE

There is considerably more agreement in respect of chronological age and its association with criminal behaviour. Reckless (27) contends that the statistical chances of an individual becoming an offender decrease with age. He reports that the delinquency rate rises sharply from 10 to 19 years, reaches a peak between 19 and 24 and declines from about 27 years of age. The Glueck's (13) in their 1930 study of 500 criminal careers found that 51 had been in conflict with social authority by age 10, 137 by age 14 and 393 by age 16. Studies conducted in military settings tend to confirm the above conclusions. Fodor (11) found youthfulness to be a salient factor in a study of a group of United States Army offenders. Stouffer and Otness (33) agree but Brady and Hildreth (4) in a study of 233 disciplinary cases and a comparable control group, found no significant difference in this respect. The weight of evidence accumulated to date would seem in general support of the view that there is a relationship between age and criminal behaviour.

PHYSICAL TYPES

Lombroso's influence was also manifest in the search for criminal "types". Goring and Pearson, an English physician and statistician, respectively, published in 1913 an anthropometric study of 3000 prisoners under the title "The English Convict". They were unable to discover the existence of Lombroso's criminal "type". As late as 1939, however, a prominent American anthropologist, E.A. Hooton, published the results of a twelve year study, which in many ways supported Lombroso's findings. At least he concluded that normals and criminals do not have the same physical characteristics. (19) Hrdlicka, also an authority of note, and most reviewers, disagreed with his findings and questioned his research techniques. Hrdlicka is of the opinion that there is no single physical sign or collection of signs which would permit the prediction of criminality. (20)

Rather sweeping claims have been made by some endocrinologists in the past concerning the relationship between glandular dysfunction and criminality. (29) More recent reports, notably Wolf's (39), suggest the presence of dysfunctions and aberrations of the endocrine glands, which <u>may</u> lead to emotional disturbances and, <u>under appropriate conditions</u>, to crime.

Although there would appear to be no distinct physical type associated with criminal behaviour, there is a fairly general belief that physical disabilities appear more frequently in criminals than in the general population. Wood and Waite (40) have suggested that poor health and other deficiencies tend to go along with the economic conditions of many problem cases. Sutherland (35) has pointed out that physical defects are significant to some criminals, because of the ridicule they occasion. It is possible that aggressive or criminal behaviour may be explained sometimes on that basis.

SOCIAL FACTORS

THE HOME

Coulter (8) has classified the homes, from which delinquents and criminals come, into five categories: "(a) homes with criminal patterns; (b) homes in which there are unsatisfactory personal relations because of domination, favoritism, nonsolicitude, overseverity, neglect, jealousy, a step-parent or other interfering relative; (c) homes in which one parent has a physical or mental disability - invalidism, feeblemindedness, blindness, deafness, psychoneurosis; (d) homes socially or morally maladjusted because of differences in race, religion, conventions, and standards or an immoral situation; and (e) homes under economic pressures - unemployment, low income, homes in which the mothers work out." Although not all authors on the subject would agree completely with the classification, it is useful here to outline the scope of this one social factor. The precise relationship of what might be called "the inadequate home" to delinquency and crime is not known, but the evidence gathered to date suggests that its influence is complex and of considerable magnitude.

The Glueck's (15) found that in 70 percent of their 1000 cases, there was evidence of unsound family disciplinary practices. Brequet (5) reported that the incidence of family disorganization was "great" in his study of 1000 reformatory inmates, and this was particularly noted in respect of divorce, death, intemperance and financial troubles. Burt (6) reported a high correlation between overcrowding and delinquency. The problem of the broken home, that is, broken through death of one parent or separation, has occupied the attention of several investigators. Evidence is not conclusive largely because of the difficulty of isolating the factor being studied, but it would seem that in some areas and under certain circumstances, at least, there is a significant relationship between the broken home and delinquency. (12) Similarly, the economic status of the home (1), parental attitudes and parent-child relationships (37) have been demonstrated to be factors associated with delinquency and crime. These few examples certainly are not intended to outline all of the home influences, which exist or which have been investigated. They have been cited here merely to suggest the importance of studying an offender's home background thoroughly, if it is desired to understand his behaviour.

MARITAL STATUS

The marital status of male adult offenders would appear to be related to criminality. Single and divorced male prisoners form a much higher percentage of the offender group than could be anticipated on the basis of their representation in the general population. Single males, for example, constituted 51% of the individuals committed to prisons and reformatories in the United States in 1938, yet the percentage of single males in the general population was only 33.2%. Comparable percentages for divorced, married, and widowed males, respectively, were as follows: 5.5 and 1.3; 40.8 and 61.2; 2.7 and 4.3. (42) When age is taken into account, married males have a lower commitment rate than single males at almost all ages. On the other hand, Lemkan and Kent in a military survey of 968 cases found that marital status was not a significant factor in relation to military misconduct. (21) It would be necessary to know, however, whether their sample was representative of military offenders, generally, before their conclusion could be related to the present study.

RURAL - URBAN INFLUENCES

The incidence of criminal and delinquent behaviour tends to be much higher in urban than in rural areas. Smith (32) in 1937 reported that there was also a relationship between delinquency rates in rural areas and the distance of those areas from urban communities. Shaw and McKay (31) after twenty years of ecological research have reported, among other important findings, that the incidence of delinquency declines from the inner areas of cities to the peripheral areas. The common basic factor in delinquency, in their opinion, is social disorganization and this phenomenon is considered to be localized in congested urban areas. Delinquency, according to their studies of several cities, is highly correlated with changes in population, inadequate housing, poverty, the presence of Negroes and foreign born, tuberculosis, mental disorders and adult criminality. It should be noted that the authors speak of "correlates" rather than "causes". There are many reasons for the greater amount of delinquency, and criminality, too, in larger urban areas, such as the relative number of laws and the extent and effectiveness of law enforcement programs. What is of interest here is that the correlation exists.

RELIGION

It has been assumed generally that religion plays an important part in checking crime. This assumption has not been supported by the evidence obtained to date. It must be admitted, however, that the influence of such factors as religion is not easily measured and the evidence may well be the result of unsound approaches. Barnes and Teeters (1) deal with the subject as follows: "Prison populations show an overwhelming majority of those who claim some religious affiliation. A high percentage of church membership in the total population has no apparent influence in reducing criminality in the community. Pending further study, we may accept Dr. Miner's statement that 'there is little evidence that the churches play any major role in the prevention of crime'." The approach of the present author has been to minimize the importance of claimed religious affiliation and concentrate upon actual practice of religion, as measured by the frequency of church attendance.

EDUCATION

This factor has been discussed widely from many viewpoints. Some writers have criticized the treatment of the mentally superior and the dull students in many schools, in that they have not been provided programs of study, which would be in keeping with their capabilities. The assumption seems to be that this deficiency is conducive toward truancy and delinquency. Others have dealt with the lack of vocational guidance and training along vocational lines, in some school systems. The assumption in this case is that the deficiency leads to vocational maladjustment, which in turn may lead to crime. (24) The professional competency of teachers in some school systems has also been questioned and some critics have gone so far as to suggest that many delinquent careers can be traced to that factor. (37) The degree of education is more easily measured than the above factors and, consequently, more conclusive evidence has been obtained in that respect. Gillin (12) has reported that the incidence of illiterates in the prison population of the United States was somewhat more than their percentage of the general population. The ratio of commitments stood highest for illiterates and reduced sharply as the degree of education increased. Gillin suggested that education may act as a "selective agent in determining behaviour". The Gluecks have reported on another aspect of the relationship between education and delinquency and crime, namely, retarded progress in school. (14) They state that of

five hundred cases studied, one fourth of them left school in the sixth grade and only seventeen percent entered high school. Only one fifth of the group were in the normal grade for their age. They also reported on one final factor to be mentioned here in this connection, namely, truancy at school. Seventy-five percent of the five hundred cases were classified as school truants.

GANG ACTIVITIES AND COMMUNITY DISORGANIZATION

Closely related to the social disorganization of some parts of urban areas, is the early beginning of delinquent careers, one manifestation of which is neighborhood gang activity. Children and youths living in such environments have ample opportunity to learn the techniques of crime through contact with organized gangs. It has been suggested that gang activity stimulates the formation of attitudes and interests of the habitual delinquent. Moreover, it has been said that this activity tends to provide satisfaction of certain basic needs, for example, companionship. In certain parts of urban areas the gang represents a major source of social contact and satisfaction. The community organizations which tend to encourage respect for law and order, such as the home, school and church, are not always too influential. It is not surprising, therefore, that professional criminals are in many cases graduates of the delinquent gangs. Thrasher states that between 25,000 and 30,000 young men and boys, as an estimate, in Chicago were subject directly or indirectly to the influence of such gangs in 1935, thus ensuring the continued production of adult criminals. (30)

NATIVITY

At one time this was considered an important factor. Early investigators based their estimates of its importance largely on the assumption of cultural conflict. They contended that the foreign born and their offspring faced great difficulty in adjusting to another environment, which was radically different in complexity and organization from the one to which they were accustomed. Early statistics appeared to support such conclusions. A survey of juvenile court statistics in the United States in 1930 revealed that forty percent of the girls and twenty percent of the boys reported were foreign born. In 1937, however, these figures had changed to a total of twenty three percent, whereas forty-four percent of the children of the general population of the areas concerned had parents of foreign birth. It is doubtful, therefore, whether the factor should be assigned any particular significance now. (24)

PERSONALITY TRAITS

Metfessel and Lovell (25), after surveying studies of factors associated with crime made from 1930 to 1940, reported that test results show offenders to be inferior in many aspects of personality. This situation was said to be evident in their "emphasis on worry, their high scores on tests of neurotic tendency, and their retardation on tests of social maturity." Offenders also seem to be psychotic slightly more than the general population but the relationships of certain psychoses to kinds of criminal behaviour have not been investigated thoroughly. Dunham (9) studied schizophrenia and its possible relation to crime in 1939 and concluded that it was a negligible factor in crime causation. He reported, however, that in a few cases where crime and mental disorder appear in the same person, schizophrenia is apparently more significant than all other psychoses as a causative factor. The terms "psychopath" or "psychopathic personality" have been used by some writers to refer to personality disorders considered typical of delinquents and criminals. The terms are extremely broad, however, including so many manifestations of the disorders in their definitions as to render them of doubtful value for diagnostic purposes.

The psychoanalytic workers have made important contributions to a fuller understanding of criminal behaviour in emphasizing, among others, concepts of motivation, the early beginnings of personality development, mental conflicts, and the mechanisms of escape, compensation and others. These concepts encourage the most complete kind of examination of each individual - his background, himself, and his environment - to provide an understanding of his behaviour. (1)

OTHER THEORIES

The more important fields of research, in connection with the present study, other than the military itself, have been outlined briefly. Certain other factors have been studied and some of these will be mentioned now. The effects of geography and climate on criminal behaviour represent a study in themselves, but emphasis has shifted from these factors to ones more closely connected with the individual and his immediate environment. The influence of the press, radio, and motion pictures have also been reported upon but they were omitted from this study because objective criteria to use in assessing their influence was lacking.

MILITARY STUDIES

Relatively few studies of factors associated with delinquent or criminal behaviour have been conducted in the military field. Four have been chosen to refer to in some detail here because of their applicability to the present study.

Stouffer and Otness (33) compared 100 naval enlisted men, in disciplinary status, who had also served thirty days or more in civilian penal institutions before enlistment, with 100 unselected enlisted men on active duty. They reported as follows regarding the delinquents:

(1) Fifty percent were under twenty-one.
(2) Divorce and separation were predominant.
(3) They tended to come from larger families with inadequate social and economic backgrounds.
(4) They showed lower educational achievement.
(5) They gave indications of previously developed asocial attitudes toward conformity and order.
(6) They showed a prevalence of psychopathic and psychoneurotic traits.

Lemkan and Kent (21) in a study of 968 cases in an Army Neurosis Center reported on various sociological factors and their relation to disciplinary actions, as follows:-

(1) Normal homes produce a significantly smaller proportion of military delinquents than broken homes.
(2) Homes with inadequate finances tend to produce a larger proportion of military delinquents but not to a statistically significant degree.
(3) The military delinquents are more likely to come from an urban background.
(4) Marital status is not a significant factor.
(5) Men who held but one job prior to enlistment are less likely to become military delinquents, than those whose work histories were badly disorganized.

Betts (3) has reported on a sample of 4,278 American selectees, with previous criminal records who were examined during 1944 and 1945. The examination took the form of completing a specially constructed Biographical Case History.

Items for the case history form were selected from data published in connection with the prediction of success in the probation and parole of civilian prisoners. (It might be noted that as early as 1927, parole "risks" were being calculated by E.W. Burgess. The Gluecks also had devised a method for predicting success or failure on parole. Factors most closely associated were weighted by assigning to each sub-category of each factor the actual percentage, to three decimal places, of the subjects in the category, who failed on parole. Then experience tables based on failure scores were constructed.) Betts assumed that a potential parole violator would also be a poor Army risk. Successive trials of the measuring instrument on contrasting criterion groups revealed that it was capable of differentiating, to a statistically significant degree, first offenders from recidivists and offenders from operative soldiers. Critical scores were selected on the basis of the probability of selectees becoming either normal operative soldiers or offenders. Of the 4,278 selectees, 57 percent were rejected for failure to meet the moral standards for enlistment. Scores obtained on the Biographical Case History indicated, according to Betts, that 92 percent of the rejects likely would have become military offenders had they been inducted.

The Betts study was of considerable value in planning the Canadian Army project. Items of the same general form and content as those in the Biographical Case History were used in the present study. It was concluded, however, that further validation of a technique, such as the one devised by Betts, was necessary before it could be used as a selection method. The present study was conceived, in part, to remedy that apparent deficiency.

Feldman and Maleski (10) conducted a similar study during the last war at a United States Army Special Training Unit. Illiterate inductees, who were sufficiently intelligent to assimilate military training, were sent there for elementary educational training. The object of the study was to develop a rating scale, which would assist in identifying individuals likely to go AWOL. Fifty AWOL cases were matched with fifty non-AWOL cases and both groups were evaluated on a rating scale of 185 items dealing with their experiences, behaviour and attitudes. The items, which differentiated significantly, between the two groups were chosen to form an abbreviated scale of 26 items. When they repeated the procedure with the same criterion groups using the abbreviated scale, the authors found a difference of 6.4 between the mean scores (one point was assigned to each significant answer). The standard error of the difference was .54. The authors concluded that the scale may be "very useful for practical purposes".

They noted, however, that there had been no cross-validation in the study. They suggested, therefore, that they might have been sampling merely the peculiarities of the criterion group and they concluded that further study was indicated. It was possible to profit from their experience in planning the present study. It was decided, for example, to use both random and matched controls to avoid the probable sampling error reported by Feldman and Maleski.

III

THE PRESENT STUDY

OBJECT

The immediate object of the study was to improve Army selection methods by devising a means of identifying those recruits, who would probably become military offenders if they were enlisted. Ultimately it was hoped to be able to calculate the offender "risk" for any individual case.

NATURE AND SCOPE

The study took the form of gathering comprehensive data about the backgrounds, intelligence, personalities, and attitudes of military offenders and non-offenders. In deciding what kind of information was likely to prove pertinent the author was guided by results of previous research, particularly with reference to civilian criminals and delinquents. Psychological tests, inventories, and interviews were administered to three groups of other ranks distributed throughout the Canadian Army. The groups consisted of the experimental subjects (the offenders) and a matched and a random group of controls chosen from the non-offender Army other rank population. It was intended to compare the information obtained regarding the three groups, to discover if any of it produced a noticeable differentiation between offenders and non-offenders.

Because of their wide distribution, it was possible for the author to test and interview only one-third of the subjects. The Army made available the services of Personnel Officers to handle the remainder.

MATERIALS USED

MINNESOTA MULTIPHASIC PERSONALITY INVENTORY (MMPI)

As stated earlier in this report, it was believed that personal maladjustment was rather closely related to military offences. Further, it has been demonstrated that personal maladjustment sometimes stems from personality deviations. Consequently, it was desired to use some means of assessing

the more important phases of personality in this study. The authors of the MMPI have claimed that it is capable of performing that function and recent research tends to support their claims.

The personality characteristics said to be measured by the inventory are classified into types, each one represented by a scale of the inventory. The following scales are in use at present: hypochondriasis (Hs), depression (D), hysteria (Hy), psychopathic personality (Pd), masculinity - femininity (Mf), paranoia (Pa), psychasthenia (Pt), schizophrenia (Sc), hypomania (Ma), and introversion - extroversion (Ie). All except the last mentioned were used in the present study. It was omitted because it is still largely in experimental form and little information is available concerning it.

In addition to the scales, referred to above, several other scores are obtained, which are said to provide estimates of the validity of any test record. The Question Score (?) is simply the number of unanswered questions in the group test record or "Cannot Say" responses in the individual form of the inventory. The Lie Score (L) gives a measure of the extent to which a subject may have attempted to falsify his scores by choosing the more socially acceptable answers. The Validity Score (F) is said to provide a check on the validity of the whole record, whether that validity was affected by carelessness, lack of comprehension, or errors in correcting the record. Finally, there is the K Factor, which is supposed to accentuate the discriminatory power of certain scale variables, Hs, Pd, Pt, Sc, Ma.

The test yields raw scores for each scale, which may be converted to standard scores by the use of conversion tables. The normal group used in the standardization of the scales consisted largely of visitors to the Minnesota University Hospitals and outpatient departments. These subjects were in large part from rural Minnesota.

Standard scores of 70 or over generally speaking may be considered abnormal but the authors caution against making conclusions based on one scale abnormality. They would prefer a clinical analysis of the patterns of scores obtained by each individual. (17)

Benton (2) has reported on one of the few studies, where the MMPI was used in a military setting. In a survey of 85 Naval neuropsychiatric patients, he found that 13 of 16 military offenders were positive on the Psychopathic Deviate Scale. Benton's report suggested that the inventory might be of value in the present study.

In addition to personality deviations it was desired to assess certain attitudes common among offenders and non-offenders. The MMPI devotes 16 items to sexual attitudes, 19 to religious attitudes, 46 to political attitudes and 72 to social attitudes.

It was necessary to choose a personality test or inventory which would be easily administered and scored. Both requirements are met by the MMPI. Projective techniques of personality assessment, however desirable from the standpoint of a more accurate analysis, were beyond the range of capabilities of the investigators. All factors considered the MMPI appeared a logical choice, so it was adopted. The group form was chosen for ease of administration.

PERSONAL INVENTORY "B" (Appendix "D")

This inventory was developed by the Applied Psychology Panel of the National Defence Research Committee in the United States during the last war. The purpose of the inventory was to assist in identifying quickly emotionally unstable men, who were likely to break down under the strain of hazardous duty. Using psychiatric judgement as the criterion, the inventory proved capable of differentiating normals and those classified as emotionally unfit for service. In the best differentiation obtained, 70 percent of psychiatric discharges were identified by a cutting score, which included only 3 percent of the normals. In the poorest differentiation, 43 percent of the discharged and 3 percent of the normals were identified by the same cutting score (the scores representing the total significant answers, one point assigned to each).

The inventory also showed a tendency to differentiate between good and bad conduct cases. The mean score for men with good conduct records was 1.7 points lower than the mean score for men with some conduct offences (critical ratio 4.1), and 2.8 points lower than the mean score for serious offenders (critical ratio 4.6).

The Biological Research Division of the Defence Research Board, Department of National Defence, had been using the inventory experimentally prior to the commencement of this study. The 60 items of the original inventory and 11 additional discriminative items revealed by a second item analysis constitute the experimental form used in Canada, the one shown at Appendix "D".

There is considerable duplication in the items of the MMPI and Personal Inventory "B", since both include educational, occupational, social and attitudinal factors, as well as questions regarding symptoms, which tend to differentiate normals and psychiatric cases. Because of its record in the military field, however, it was decided to include Personal Inventory "B" as one of the methods of assessment in this study.

ATTITUDE TOWARD THE TREATMENT OF CRIMINALS
(Appendix "E")

The two attitude questionnaires, Forms A and B, were developed by Thurstone of Chicago. Their purpose is to describe people's attitudes toward the treatment of criminals without any implication that one attitude is more correct than another. Each form consists of 20 questions to which the author has assigned values, the higher values being associated with statements favoring severe punishment of criminals. A person's score is the median scale value of all the statements he endorses. A table is provided to permit interpretation of individual scores, the interpretations ranging from "Strongly opposed to punishment of criminals" to "Favoring severe punishment of criminals". The author also suggests that comparison of mean scores obtained by several groups of people may be of value. Forms A and B are said to give comparable scores.

This particular type of attitude questionnaire was chosen because it was believed that military offenders and individuals, who had no record of military misconduct, would regard the subject quite differently.

BIOGRAPHICAL QUESTIONNAIRE (Appendix "F")

This questionnaire, which was prepared by the present author, represents an attempt to obtain as much background information as possible about the offenders and non-offenders,

from which discriminative items could be drawn. It comprises 158 items, which were administered to both groups and 15 additional items, which apply to the offenders only. These items cover a wide range of research data, some of which will be analysed in the next section under such headings as intelligence, age, discipline in the home, and religion. The remaining items will be treated separately as part of an experimental inventory. Because they are available for inspection in their original form at Appendix "F", and because they will be discussed later, it was not considered necessary to outline them in detail here.

REVISED EXAMINATION "M" ("M" Test)

This test was not administered as part of the project. "M" Test scores were available for the subjects, however, because the test is administered to all soldiers at the time of their enlistment. As test scores will be referred to later, a brief word of description will be given now.

The test provides a measure of intelligence. It is composed of 8 sub-tests, three of which are non-verbal, two deal with generalized knowledge of common tools, and three form a verbal group. The sub-tests correlate to a high degree with the total score (coefficients range from .692 to .845), which has been taken as evidence that the sub-tests measure the same factor, general intelligence, although their content differs.

The test-retest reliability is .96. A high degree of validity has been demonstrated in connection with the relationship between high scores and success in terms of rank and on special training, which requires a high level of intelligence.

The test contains 211 items and the score distribution on the English forms, with the associated interpretations in terms of general intelligence, are as follows:

Group 1 -	175 to 211	-	Superior
2 -	160 to 174	-	High
3 -	130 to 159	-	Average
4 -	100 to 129	-	Low
5 -	70 to 99	-	Inferior
6 -	0 to 69	-	Very Inferior

RESEARCH METHODS

SELECTION OF SAMPLES

THE OFFENDERS

The experimental group, the offenders, were selected in accordance with the definition provided in the "Introduction" section of the report. At the time the study began, there were only 28 soldiers serving sentences in detention throughout Canada. As this sample was considered rather small, instructions were issued to Personnel Officers to test and interview all soldiers sentenced to detention until at least 50 cases were obtained.

A total of 62 offenders were reported upon over the three month period covered by the study. Twelve of these had to be omitted from the final analysis, however, because certain records (for example, the MMPI, which was filled in by the subjects) were completed so carelessly that they were of little or no value. The final sample, therefore, comprised 50 offenders.

Because the offenders were from all detention barracks in Canada, it was considered that the sample should be representative of the peacetime Army's offender population. To verify this assumption certain data was obtained concerning a large sample of soldiers sentenced to detention from October 1, 1946 to November 30, 1948 and similar data for the experimental group was compared with it. The results of this comparison are shown in Table 1, below. The number of cases vary in respect of certain factors because of incomplete records.

Comparative Factors	Experimental Group N-50	Offenders 1946-1948	N of Offenders 1946-1948
Mean Age	22.64	22.0	270
Mean Education	8.7	8.54	254
Mean "M" Score	144.0	140.3	258
Marital Status (Married)	22%	17%	
(Single)	78%	83%	
% with previous service	62%	45%	
% with no previous service	38%	55%	
Nature of Offence (AWL)	62%	77%	
(Others)	38%	23%	
Racial Origin (Anglo Saxon)	68%	72%	N-500
(Fr.Cdn.)	8%	15%	
(European & Others)	24%	13%	
Rural-Urban (Farm or Village)	12%	10.6%	
Background (Town)	34%	22.7%	
(City)	48%	66.7%	

TABLE 1 A Comparison of the Experimental Group with Soldiers Sentenced to Detention from October 1, 1946 to November 30, 1948.

An examination of the above table will reveal sufficient similarity to lend support to the assumption that the experimental sample was representative of military offenders in general, at least under peacetime service conditions. This is particularly true in respect of age, education and intelligence, as measured by the "M" Test.

THE MATCHED CONTROL GROUP

It was intended that this group of control subjects should be matched, man for man, with the offender group of 50 on the following factors: age, intelligence, education, racial origin (classified as Anglo-Saxon - English, Scotch, Irish, Welsh; French Canadian; European - all continental European races, including the Russian group and Semetic; and Others), regional origin - meaning the part of the country in which the subject lived chiefly (classified according to the five Army Command Areas - Eastern, Quebec, Central, Prairie and Western), and finally as to whether the subject was raised primarily in a city, town, village or on a farm. It was found quite impossible to complete the matching process with so many precise factors involved. Intelligence and regional origin had to be left out. Age was retained although it was found difficult to locate non-offenders, who possessed the other requirements and were as young as many in the offender group.

It might be noted that both the offender and the matched control groups were made up of soldiers in the rank of Private.

THE RANDOM CONTROL GROUP

Two choices were considered with respect to the selection of the random controls, one, to select them from the general Army other rank population or, two, to select them from the non-offender other rank population. The latter choice was adopted. The reason was simply that the study in this initial phase was designed to differentiate offenders and non-offenders in the service. Subsequent validation studies should include, as controls, samples of the general Army population and also samples of the general recruit population.

It was originally intended that this random control group should total at least 100. Wastage, due to faulty records, and the inability of one command to complete its assignment, reduced that figure to 75.

Regional representation was fairly adequate in the light of the latter factor. It is probable, however, that a larger percentage of subjects from Ontario could be anticipated on the basis of the number of soldiers enlisted there. Another factor, which might have been operating, is obscured by the incompleted assignment. This factor is the probable higher incidence of military offences among soldiers from certain regions in Canada.

Unlike the matched control group, the random controls included a fair percentage of NCOs, actually 14 out of the 75 sample, ranging in rank as high as Sergeant.

To ensure that the group would be chosen at random, instructions were issued to Personnel Officers to draw from their personal history files, which are maintained for each soldier, every tenth document until the assigned number of acceptable cases had been obtained. The numbers assigned to each station were based upon the number of soldiers there, in relation to the total Army population. If any document drawn from the files revealed a history of military misconduct, it was rejected and put aside. If the required number of cases were not located after one turn through the files, the procedure was repeated.

Although the sample was not designed to be representative of the general Army population, including Officers, NCOs and other ranks (offenders and non-offenders), inspection of the results of the initial analysis suggested that there was probably a degree of similarity, at least on some factors. Data on three factors, age, education and "M" score, was obtained from Army Headquarters for comparison with similar data on the random control group. The comparison is presented in Table 2, below.

Comparative Factors	Random Controls N-75	General Army Population	N in General Army Population Samples
Mean Age	... 28.96 ..	.... 27.60 .	.... 16,193 .....
Range in Ages ...	. 17 to 46 ..	17 to 53 .	.....
Mean "M" Score..	,,.. 151.2 ..	.... 150.0 .	..... 5,429 .....
Mean Education .	..... 9.2 ..	..... 9.0 .	.... 15,071 .....
Range in Education	. 7 to 12 ..	6 to Univ. Grad.	.....

TABLE 2 A Comparison of the Random Control Group with Large Samples of the General Army Population.

It is not intended to conclude from the above comparison that the random controls are entirely representative of the general army population and that no further validation is necessary. The comparison is presented merely because it does show the random sample to be sufficiently representative that at least tentative conclusions can be formed on the basis of this study.

COLLECTION OF DATA

It was assumed that the maximum degree of cooperation between the subjects and the interviewers would be enjoyed if the subjects understood that their answers were to be treated confidentially. Accordingly, the following instructions were issued to the interviewers:-

"13. The anonymity of ALL persons tested and interviewed will be preserved throughout the survey and thereafter. NO reference will be made in any report resulting from the survey to any individual by name. It must not be possible for any one to relate answers, which may be given to any question, to any individual. Delinquent cases will be numbered 1 - 50 (inclusive). Matched control cases will be numbered 1A - 50A (inclusive), #1 in the delinquent group being matched with #1A in the matched control group, and so on. Random control

cases will be numbered 101B to 200B. Names or regimental numbers will NOT be recorded on any of the report forms used in the survey and NO reference will be made on Cdn Army (AF) documents to the interview answers or impressions gathered by the interviewer. Interviewers are also requested to refrain from discussing the content of the questionnaire, or the responses of any subject with anyone outside Personnel Selection Service. Because of the need for discretion with respect to conducting the survey, Command Personnel Officers are requested to ensure that only the experienced and most trustworthy interviewers participate in the survey.

14. Subjects in the two control groups must be volunteers, in the sense that, when they have been located and the purpose of the survey has been explained to them, they must signify their willingness to be tested and interviewed. Naturally interviewers will make every possible attempt to obtain the maximum cooperation from the delinquent group, as well. They should at least "feel" that their approval has been sought. Interviewers should realize that their job is to establish rapport with the subjects, to supervise the filling out of Personal Inventory "B", the Minnesota, and the Attitude Scale, to ask the questions in the Biographical Questionnaire carefully and in no rush, and to record the answers, and to assure each subject that his answers will be held in the strictest confidence. They are not expected to probe for the truth, if they suspect that it is not being offered. They are not expected to offer an analysis of the factors operative in each case. Their main responsibility is to obtain the confidence and cooperation of the subjects and retain that throughout the tests and interviews. Toward that end, the interviewers should guard against displaying surprise, disapproval, condemnation, or disinterest. They should make it clear in their introduction in a simple, straightforward manner that they want the truth and then they should look and act as though they were getting it and are properly appreciative."*

A copy of the instructions issued to interviewers which were to be followed in requesting the cooperation of the subjects may be found at Appendix "C".

* Quoted from an instruction from AHQ (Personnel Selection Service) to Command Personnel Officers, under file references: HQC 121-65-16 (Org 1C) and HQ 121-65-30 (Org 1C), dated 8 OCT 48.

ANALYSIS OF THE DATA

The data to be analysed consisted of the following:

(1) MMPI of 566 individual items and 13 scales and scores.

(2) Personal Inventory "B" of 71 "Yes-No" or "True-False" items.

(3) Attitude toward the Treatment of Criminals, Forms A and B, each with 20 items of the "Agree-Disagree-Cannot Say" variety.

(4) Biographical Questionnaire with 158 questions, 83 of which could be classified as "Yes-No" or "True-False" types, and the remainder as descriptive items. After inspection and rejection of unsuitable items, the questionnaire was reduced to 83 "Yes-No" and 40 descriptive items.

The total items to be analysed, apart from any overall analysis of the scales, totalled 760. In addition, there were 40 descriptive items from the Biographical Questionnaire which required evaluation.

It was decided to adopt the following approach:

(1) Calculate mean raw scores and raw corrected scores (with the "K" factor added) for each scale of the MMPI and for each group of subjects. Compare the differences between the mean scores by the critical ratio method. It was decided to compare the offender group with each of the control groups using the same method. If the ratios obtained from the two calculations were similar, it was not intended to compare the two control groups in a similar fashion, the assumption being that a significant ratio would not result in the latter case.

(2) Calculate the mean standard or T scores for each scale for each group of subjects and compare these graphically.

(3) Compare the scores obtained by the three groups on the two attitude scales by the critical ratio method.

(4) Analyse the 40 descriptive items, such as age, education, M score, family income by comparison of means and by percentages falling in various classifications, as applicable.

(5) Analyse the 760 individual "Yes-No", "True-False", "Agree-Disagree" items from all four questionnaires by the Lawshe Nomograph technique. (Appendix "G"). This is a short method of obtaining discrimination values of test or inventory items from the percentage of successful or significant responses given by members of two criterion groups.

Time would not permit any further study of the results. Personal Inventory "B" could not be examined as a separate measure. Items from the inventory were analysed according to (1) above and further study of the inventory's discriminative qualities will be undertaken later.

IV

RESULTS

MINNESOTA MULTIPHASIC PERSONALITY INVENTORY

All scales and validating scores of the MMPI will be analysed hereunder in tabular form, including both raw scores and scores corrected for five scales by the addition of the "K" factor, with the exception of the Ie Scale and the Question Score (?). The former was discussed earlier. The latter score, in the case of the group form of the inventory used in this study, refers to unanswered items. Since no record in the study contained more than 30 unanswered items, the number deemed significant by the authors of the inventory, an analysis of the question scores would not appear profitable. It is noteworthy that all Question Scores up to and including 30 are converted to a standard or "T" score of 50.

The first table will present the means and standard deviations for both the raw scores and the corrected raw scores in respect of the three groups used in the study. In addition, the same data calculated for what was considered normal males by the authors of the inventory will be recorded to permit comparisons with the group data obtained in this study.

It will be noted that matched control group means and standard deviations, based upon raw scores, without the addition of the "K" factor, have not been included. The reason for this is that means and standard deviations were calculated on the basis of corrected raw scores first. The relationship between the random and matched control data was so close that it was decided to omit matched control calculations on the basis of raw scores obtained on the five "K" scales.

SCALES	Offenders		Matched Controls		Random Controls		Author's Data & N		
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	N
"L"	2.68	1.88	4.02	2.13	4.17	1.95	-	-	-
"K"	11.64	5.0	13.92	4.37	14.13	4.82	-	-	-
"F"	8.52	6.16	3.74	2.92	3.80	2.89	-	-	-
"Hs"	5.54	4.33	-	-	3.50	2.79	4.53	4.37	294
"Hs"+ 5K	11.12	3.84	10.74	3.09	10.86	3.22	11.34	3.90	274
"D"	19.36	4.05	17.34	2.77	17.24	3.59	16.63	4.18	294
"Hy"	16.86	4.38	16.14	3.54	15.96	3.56	16.49	5.51	345
"Pd"	21.80	4.66	-	-	14.74	2.99	13.99	3.93	294
"Pd"+ 4K	26.30	4.43	20.7	3.34	20.38	3.78	18.86	4.25	274
"Mf"	21.74	4.17	20.13	7.81	22.13	4.34	20.44	5.13	117
"Pa"	10.36	1.41	6.92	3.05	7.33	3.11	8.06	3.56	293
"Pt"	17.74	8.36	-	-	8.93	6.53	9.86	7.19	293
"Pt"+ 1K	29.0	5.56	22.74	3.67	23.06	4.33	22.95	4.88	274
"Sc"	17.88	11.62	-	-	7.70	4.96	9.57	7.43	294
"Sc"+ 1K	29.14	9.64	22.0	4.27	21.84	4.46	22.26	5.21	274
"Ma"	20.82	4.44	-	-	15.0	3.43	14.51	4.42	294
"Ma"+ 2K	22.88	4.18	21.64	3.44	20.85	3.53	16.83	3.99	274

TABLE 3:

Means and Standard Deviations of Raw and Corrected Raw Scores Obtained by the Three Groups in the Study and by the "Normal Males" tested by the Authors of the MMPI.

To discover whether there was a statistically significant difference between the mean scores recorded in Table 3, the formula for the "critical" or "significance ratio" was applied to the data. This method, described in detail by Lindquist (22), enables one to find the chances that the true difference between means is greater than zero. A critical ratio of 3 or more is considered significant. With a ratio of 3, there would be 99.9 chances in 100 that the true difference is greater than zero.

The following table presents the critical ratios for each of the scales, based upon both raw and corrected raw scores. The offender group means are compared with the matched control group means using corrected raw scores only, and with the random control group means using both corrected raw scores and raw scores without the "K" factor.

Scales of MMPI	A. Critical Ratio Offenders - Matched (Corrected Raw Scores)	B. Critical Ratio Offenders - Random (Corrected Raw Scores)	C. Critical Ratio Offenders-Random (Raw Scores for 5K Scales)
"L"	3.33	4.09	-
"K"	2.43	2.76	-
"F"	4.90	4.90	-
"Hs"	.55	.39	2.95
"D"	2.96	2.99	-
"Hy"	.96	1.21	-
"Pd"	7.14	7.75	9.49
"Mf"	1.18	.50	-
"Pa"	7.24	6.28	-
"Pt"	6.64	7.38	6.28
"Sc"	4.80	5.01	5.88
"Ma"	1.67	2.82	3.80

TABLE 4:

Critical Ratios Obtained When Mean Scores on MMPI for Each Group Were Compared.

ANALYSIS OF DATA FROM MMPI

1. It will be noted that there is a high degree of uniformity in the critical ratios obtained when the offenders are compared with either control group. Because of this uniformity the two control groups were not compared with each other.

2. Critical ratios of statistical significance were obtained for the following scales and scores of the MMPI:-

The Lie Score ("L")
The Validity Score ("F")
The Psychopathic Deviate Scale ("Pd")
The Paranoia Scale ("Pa")
The Psychasthenia Scale ("Pt")
The Schizophrenia Scale ("Sc")

In addition, critical ratios obtained for the "K" Scale, the Depression Scale (raw corrected scores) and the Hypomania Scale (raw corrected scores) approach the level of significance chosen as a requirement in connection with the study, a C.R. minimum of 3.

3. The "K" factor, it will be recalled, is intended to be a correction factor which accentuates the discrimination power or value of the variables measured by the inventory. Column "C" of Table 4, above, shows the critical ratios obtained for the five "K" scales, without the use of the "K" factor. When only raw scores are used, higher critical ratios are obtained for four of the "K" scales and lower critical ratios for one scale, "Psychasthenia". This would suggest that the "K" factor does not operate as the authors of the inventory intended, at least in connection with military offenders and non-offenders. Rubin has noted similar results in a study of psychiatric patients in a Veterans Hospital.(23).

4. Variations noted by inspection of the authors' data and the scores of "normals" in this study prompted a comparison of random control group data with the authors' data. Again the critical ratio method was used. Ratios obtained for each scale using raw corrected scores follow:

Hs - 1.09	Pd - 3.04	Pt - .15
D - 1.26	Mf - 2.45	Sc - .69
Hy - 1.05	Pa - 1.76	Ma - 8.48

It will be noted that statistically significant ratios are obtained for the "Pd" and "Ma" scales and that the Mf ratio approaches the chosen minimum of 3.

The two "normal" groups appear quite different in respect of the qualities measured by the scales mentioned above. It is noteworthy that the Army "normals" have higher scores on all three scales.

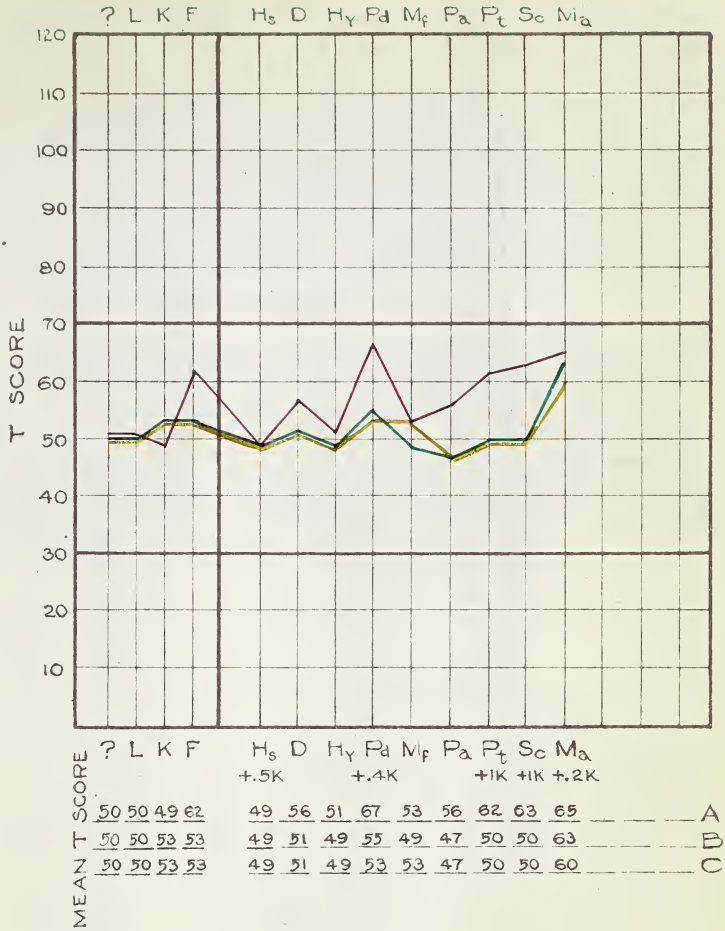
5. An examination of Table 3 reveals that the offenders have lower mean "L" and "K" scores than the non-offenders. The offenders have a lower mean Mf score than the random controls. In the case of all other scales the offenders have higher scores than the non-offenders. As shown in Table 4, above, the differences in the scores obtained on six scales are statistically significant.

DATA BASED UPON "T" SCORES OF MMPI

	L	K	F	Hs	D	Hy	Pd	Mf	Pa	Pt	Sc	Ma
Offenders	-	0	24.0	8.0	8.0	2.0	38	2.0	16.0	26.0	28.0	34.0
Matched Controls	-	2	2.0	-	-	-	2.0	2.0	-	-	2.0	24.0
Random Controls	-	4	2.6	2.6	6.6	-	1.3	4.0	2.6	4.0	1.3	17.3

TABLE 5:

Percentage of Subjects in Each Group Having "T" Scores of 70 or Above on Individual Scales of the MMPI.



MEAN T SCORE	?	L	K	F	Hs +.5K	D	Hy	Pd +.4K	Mf	Pa	Pt +1K	Sc +1K	Ma +.2K	
	50	50	49	62	49	56	51	67	53	56	62	63	65	A
	50	50	53	53	49	51	49	55	49	47	50	50	63	B
	50	50	53	53	49	51	49	53	53	47	50	50	60	C

LEGEND:
A —— OFFENDERS
B —— MATCHED CONTROLS
C —— RANDOM CONTROLS

TABLE 6:

Mean T Scores Obtained on Minnesota Multiphasic Personality Inventory by Groups of Military Offenders, Matched Controls and Random Controls.

6. The lower offender "L" score could be explained on the grounds that offenders are less concerned about seeking socially acceptable answers. Similarly, the lower offender "K" score is suggestive of a desire to get a "poor" score, although this interpretation is advanced with a good degree of caution in the light of paragraph 3, above. The higher offender "F" score would suggest further caution in drawing conclusions based on the high critical ratios. This score is supposed to be a check on the validity of a record. The results of the study in this respect must be checked on new, and preferably larger, samples.

7. The other significant ratios, and near significant ratios, tend to support the initial hypothesis, referred to earlier, in respect of the relationship between military offences and personal maladjustment. If the results are valid it is apparent that the military offender tends to be a remarkably unstable individual. Types of offence, and other factors reported in "Personal Adjustment", also suggest that is a fact.

ATTITUDE TOWARD THE TREATMENT OF CRIMINALS

Scores obtained by all three groups of subjects on Form A of the attitude scale were treated statistically. In addition the individual items of both forms were analysed as part of the longer item analysis. Since the two forms are stated to be comparable, means and standard deviations were not calculated for Form B.

Data on Form A is presented below:

	Offenders	Matched Controls	Random Controls
Mean Score	5.6	5.5	5.6
S.D.	2.47	1.97	2.38

The interpretations of the mean scores 5.5 and 5.6 are "neutral or doubtful". In other words, a noticeable differentiation was not produced by the attitude scale. The critical ratio calculated in comparing the offenders with the matched controls was 0.22. Offenders and random controls were not compared further because their mean scores were both 5.6.

BIOGRAPHICAL INFORMATION

Factors covered in the Biographical Questionnaire, which could not be analysed by the nomograph technique, were examined separately. These will be reported upon now. Headings used earlier in outlining theories of crime and related research will be repeated to facilitate the comparison of the results of this study with previous reports.

BIOLOGICAL AND PHYSIOLOGICAL FACTORS

CRIME IN THE FAMILY

12% of the offenders and 8% of the controls came from families where a member had been to jail. The factor does not appear significant insofar as this study is concerned.

INTELLIGENCE

The mean "M" score of offenders was 144.0 and the range of scores was 110 to 172. Comparable figures for the matched control group were 145.6 and 102 to 183, and for the random controls 151.2 and 107 to 193. Comparing the differences between means by the critical ratio method yielded a ratio of .615 for the offenders and matched controls and 2.25for the offenders and the random controls. The mean scores reported above are all interpreted as "average". Generally speaking, as in civilian research, intelligence does not appear a significant factor although it may have some bearing on military offences in individual cases.

AGE

In general, the offenders were younger than the controls, this fact tending to support previous studies referred to earlier in the report. The mean age of the offenders was 22.64 compared with the mean age of the random controls of 28.96. As this was one of the matching factors, the matched group could be expected to have the same mean age and range as the offenders. As mentioned previously, however, it is probably significant that considerable difficulty was experienced in matching in respect of this factor.

The range of ages for offenders was 17 to 37 and, for the controls, 18 to 46. 38% of the offenders were 20 years of age or younger and only 6.6% of the controls could be classified in that category.

PHYSICAL CONDITION

When describing previous theories, reference was made in this report to physical "types" and the probable influence of physical defects on criminal behavior. Such factors could not be treated properly in this particular investigation. Questions were asked, however, concerning the subject's own assessment of his general health (items 59 and 66 of the Biographical Questionnaire are examples), 22% of the offenders, compared with 8% and 4% of the two control groups, reported that they were often sick as children. Similarly, in relation to their present health the offenders reported a higher incidence of tiring easily, sleeping poorly and having "trouble" with their "nerves". It is noteworthy that such complaints suggest functional rather than organic deficiencies.

SOCIAL FACTORS

THE HOME

58% of the offenders compared with 44% and 50.6% of the controls came from families with more than five children. 13% of the offenders were either "only" children or the youngest in the family, as compared with 40% and 24% of the controls.

The offenders tended to show a more marked preference for one or the other parent. 50% of the offenders, for example, had no preference for either parent whereas the controls were the same with 78% of each group so classified. It is possible that parent - child relations in the homes of certain offenders could account for a strong liking (or dislike) for one parent.

It is significant that 28% of the offenders considered discipline in their family was not strict enough, whereas only 8% and 1.3% of the controls were of that opinion. The survey failed to reveal, however, any noteworthy difference in the nature of the discipline in the homes being compared.

Similarly there was not much difference between the groups in respect of whether their own parents raised them or not. 14% of the offenders, 12% and 6.2% of the controls were raised by step-parents, foster parents or by others (including institutions).

The father's income was chosen as a measure of the economic security associated with the home. No significant differentiation was discovered between the offenders and non-offenders in this regard. The same situation prevailed in connection with the factor of home-ownership.

Separation for long periods (24% and 15%), divorce (24% and 15%) and frequent quarrels (22% and 11%) among the subjects' parents were more common in the case of the offenders than the controls. Similarly offenders reported that they quarreled with other children in the family more than did the controls (28% and 17%, respectively). 68% of the offenders reported that they believed their parents were glad when they were born as compared with 90% of the controls.

It will be seen that, in the case of some factors, the offenders' homes tended to resemble those reported upon in connection with civilian delinquency and crime.

MARITAL STATUS

78% of the offenders were single. Of the married 22%, two were separated and one had a common-law wife. When these figures were compared with those for the random controls, the situation was reversed (24% single, 74.6% married, with one separation recorded).

RURAL - URBAN BACKGROUND

Very similar percentages of each group of subjects could be classified according to whether they had been raised chiefly on a farm or in a village, in a town, or in a city. These findings are in disagreement with reports of investigations suggesting that there is a relationship between urban backgrounds and criminal behavior.

RELIGION

Two subjects in each group made no claim to a religious affiliation. The distributions of subjects, according to affiliations, were similar and not of any apparent significance. 16% of the offenders stated that they never attend church as compared with 12% and 6.6% of the controls. Similarly less offenders attend church regularly (8%) than non-offenders (10% and 20%). This factor, however, does not appear to be generally significant on the basis of the percentages obtained.

EDUCATION

When the offenders and the random controls were compared on this factor means of 8.7 and 9.2, respectively, were obtained. The difference between the means was examined by the critical ratio technique and a ratio of 2.5 was obtained.

30% of the offenders were retarded (so classified if a subject repeated more than one grade) as compared with 12% and 4.9% of the controls.

PERSONAL ADJUSTMENT

SCHOOL HISTORY

It was not possible to differentiate to a significant degree between offenders and controls on the basis of the incidence of truancy (defined in terms of irregular attendance) or behavior, which resulted in a subject being suspended or expelled. Both offenders and controls, with few exceptions, said they liked their teachers and they believed the feeling was reciprocated.

16% of the offenders reported, however, that they were late more than the majority of the pupils, compared with the figure 4% for both control groups.

The factor of gang activity during school years, as defined here, failed to provide any significant differentiation. Probably the criterion was at fault. Items 93, 93A and 95 certainly do not express the idea of organized delinquent gang activity particularly well.

OCCUPATIONAL HISTORY

The offenders reported numerous job changes to a greater extent than the non-offenders (40% compared with 14% and 10.6%). Also, the offenders quit their jobs over disagreements, for no particular reason or because they were fired considerably more than the controls (26%, 6% and 13%).

There was no significant difference between the groups, however, in their reported attitude toward their work (items 134 and 135 of the Biographical Questionnaire).

FEELINGS OF INFERIORITY

One factor which produced a noticeable differentiation was whether the subject thought he was wanted as a child (item 13 of the Questionnaire). This was referred to in the section dealing with "The Home".

Another factor, which is probably classifiable under this general heading, is the extent to which the subjects were subjected to teasing (item 35). 34% of the offenders, compared with 16% and 12% of the controls, reported they were teased a great deal.

40% of the offenders stated they wanted many things as children, which their families could not buy. The controls reported this situation to a lesser extent, 26% and 22%. Similarly, the offenders felt their friends were better off than they, (28%, 8% and 17%). 38% of the offenders, 10% and 4% of the controls, felt they were less well dressed than most pupils at school. There was very little difference between the groups in respect of whether they thought they had more or less friends than most pupils at school.

HOBBIES

42% of the offenders reported they had no hobby or favorite spare time activity compared with 12% and 6.6% of the controls. The offenders, as a group, appear to read less than the controls.

SEXUAL ACTIVITY

The offenders reported that they started to "go out with girls" somewhat earlier than the controls. Sixteen years and under marks that point of development for the great majority (76%), whereas 54.6% is a comparable figure for the random controls.

Similarly, the offenders reported earlier sexual experiences than the controls. The majority (92%) of the offenders claim to have had intercourse at 15 years or less. A comparable figure for the random controls is 58%.

52% of the offenders were classified as "promiscuous", compared with 22% and 36% of the two control groups.

CIVILIAN OFFENCES

26% of the offenders reported one civil arrest, 18% - 2 to 5, 2% - 6 to 8, and 2% - 9 or more. Only 52% had no previous criminal record. 8% of the matched controls had one civil arrest, 8% admitted 2 to 5, and 84% had no criminal record. Percentages for the random controls are similar to the matched group data.

Two of the offenders were the only subjects to report reform school records.

NATURE OF MILITARY OFFENCES

62% of the offenders were sentenced to detention for being AWOL. Other offences constituted insubordination and trouble associated directly or indirectly with excessive drinking. 34% of the offenders were recidivists, one of whom reported he had been in detention or field punishment thirteen times over a considerable period of service.

Reasons for the offences, as reported by the subjects, were drinking (28%), "fed up" (20%), "not sure" or "no reason" (22%), and several others such as broken promises regarding leave, and the like, "wanted my discharge", and "carelessness".

48% of the offenders came from training schools, 26% from regiments and 26% from service units. 18% were employed at what would appear to have been productive work; 32% said they were doing fatigues; 46% were on training and the remaining 4% were in hospital or awaiting disposal.

14% of the offenders stated that they didn't get along well in their units. The same number felt that someone in the unit "had it in" for them. 40% were either not sure or believed that the punishment would not keep them out of trouble in future.

DRINKING HABITS

98% of the offenders stated that they drink beer, hard liquor, or both, compared with 90% and 86.6% of the controls. The offenders engaged in heavy drinking far more than the controls. For example, 40% stated that they became drunk once every few months or more, compared with 12% and 3.9% of the controls.

RACIAL AND REGIONAL ORIGIN

There were no significant differences in respect of racial origin, as defined in item 4 of the Questionnaire.

Regional representation in both the offender and non-offender groups was what could have been anticipated on the basis of the distribution of the army population, and the method of sampling.

ITEM ANALYSIS RESULTS

123 items of the MMPI, 12 items from Personal Inventory "B", no items from the two attitude scales, and 16 items from the Biographical Questionnaire were found to possess discrimination values (D-values) of .5 or more, as measured by the Lawshe Nomograph technique.

In obtaining this number of items offenders and the two control groups were compared in respect of the percentage of significant responses to each item. The D-values so obtained were very similar, this fact obviating the necessity of comparing the two control groups in the same manner. However, if any difference in values existed, the lower value was selected as the measure in relation to this study.

The "cut-off" of .5 was chosen arbitrarily after inspecting the results. The relative percentages in each criterion group vary at the lower ends of the scales. A fair approximation of the effect of the choice of .5 as a cut-off will be obtained, however, by noting that, if 62% of the high criterion group and 38% of the low criterion group gave significant responses a positive value of .5 would result.

The more discriminative items, referred to above, may be found on succeeding pages, together with an indication of the offenders' choices and the D-values of each item. Items 1-123 are from the MMPI, 124-135 from Personal Inventory "B", and items 136-151 from the Biographical Questionnaire.

Item	Offender Response	D-Value
1. I wake up fresh and rested most mornings.	False	.5
2. My daily life is full of things that keep me interested.	False	1.2
3. When I take a new job, I like to be tipped off on who should be gotten next to.	False	.5
4. My sex life is satisfactory.	False	.7
5. At times I have very much wanted to leave home.	True	.6
6. At times I have fits of laughing and crying that I cannot control.	True	.7
7. No one seems to understand me.	True	.9
8. Evil spirits possess me at times.	True	.6
9. When someone does me a wrong I feel I should pay him back if I can, just for the principle of the thing.	True	.5
10. I find it hard to keep my mind on a task or job.	True	.8
11. If people had not had it in for me I would have been much more successful.	True	.5
12. Most any time I would rather sit and daydream than to do anything else.	True	.5

Item	Offender Response	D-Value
13. I have had periods of days, weeks, or months when I couldn't take care of things because I couldn't "get going".	True	.5
14. Much of the time my head seems to hurt all over.	True	.9
15. I do not always tell the truth.	True	.6
16. My judgment is better than it ever was.	False	.8
17. My soul sometimes leaves my body.	True	1.0
18. I am a good mixer.	False	.5
19. I have not lived the right kind of life.	True	.5
20. Parts of my body often have feelings like burning, tingling, crawling, or like "going to sleep".	True	.5
21. Most of the time I feel blue.	True	.5
22. I sometimes tease animals.	True	.6
23. Sometimes I am strongly attracted by the personal articles of others such as shoes, gloves, etc., so that I want to handle or steal them though I have no use for them.	True	.8
24. I think most people would lie to get ahead.	True	.5
25. I do many things which I regret afterwards (I regret things more or more often than others seem to).	True	1.2
26. I go to church almost every week.	False	.7
27. I have very few quarrels with members of my family.	False	.6

Item	Offender Response	D-Value
28. My hardest battles are with myself.	True	.7
29. I don't seem to care what happens to me.	True	.6
30. Much of the time I feel as if I have done something wrong or evil.	True	.5
31. Someone has it in for me.	True	1.1
32. Often I feel as if there were a tight band about my head.	True	1.0
33. In school I was sometimes sent to the principal for cutting up.	True	.5
34. My speech is the same as always (not faster or slower, or slurring; no hoarseness).	False	.7
35. If I could get into movie without paying and be sure I was not seen I would probably do it.	True	1.0
36. I believe that my home life is as pleasant as that of most people I know.	False	.9
37. Sometimes I feel as if I must injure either myself or someone else.	True	.9
38. I certainly feel useless at times.	True	.6
39. I would like to be a soldier.	False	1.5
40. I have the wanderlust and am never happy unless I am roaming or traveling about.	True	.7
41. Most nights I go to sleep without thoughts or ideas bothering me.	False	.9

Items	Offender Response	D-Value
42. I have had periods in which I carried on activities without knowing later what I had been doing.	True	.7
43. I feel that I have often been punished without cause.	True	.8
44. I have never felt better in my life than I do now.	False	1.1
45. I like to study and read about things that I am working at.	False	1.0
46. I liked school.	False	.7
47. I do not have a great fear of snakes.	False	.6
48. My mother was a good woman.	False	1.3
49. I am worried about sex matters.	True	.6
50. I am against giving money to beggars.	False	.7
51. I daydream very little.	False	.6
52. I like to flirt.	True	.6
53. I have used alcohol excessively.	True	1.1
54. I frequently find myself worrying about something.	True	.6
55. My parents have often objected to the kind of people I went around with.	True	1.1
56. I have been told that I walk during sleep.	True	.9
57. I have been inspired to a program of life based on duty which I have since carefully followed.	False	.8
58. I brood a great deal.	True	.7

Item	Offender Response	D-Value
59. I have periods of such great restlessness that I cannot sit long in a chair.	True	.7
60. I have been disappointed in love.	False	.5
61. I dream frequently about things that are best kept to myself.	True	.6
62. My way of doing things is apt to be misunderstood by others.	True	.6
63. My parents and family find more fault with me than they should.	True	.8
64. No one cares much what happens to you.	True	.5
65. I usually expect to succeed in things I do.	False	1.6
66. I have difficulty in starting to do things.	True	.5
67. Once a week or oftener I become very excited.	True	.7
68. When I leave home I do not worry about whether the door is locked and the windows closed.	True	.5
69. I am sure I am being talked about.	True	.6
70. I am always disgusted with the law when a criminal is freed through the arguments of a smart lawyer.	False	.6
71. Life is a strain for me much of the time.	True	1.0
72. At times I have very much wanted to leave home.	True	1.0
73. No one seems to understand me.	True	1.4

Item	Offender Response	D-Value
74. I cannot keep my mind on one thing.	True	1.6
75. I easily become impatient with people.	True	.8
76. Sometimes I become so excited that I find it hard to get to sleep.	True	.6
77. Often I cross the street in order not to meet someone I see.	True	.7
78. I often feel as if things were not real.	True	.7
79. I have a habit of counting things that are not important such as bulbs on electric signs, and so forth.	True	.7
80. I have strange and peculiar thoughts.	True	1.0
81. Sometimes I enjoy hurting persons I love.	True	.6
82. Bad words, often terrible words, come into my mind and I cannot get rid of them.	True	1.1
83. Sometimes some unimportant thought will run through my mind and bother me for days.	True	.6
84. People say insulting and vulgar things about me.	True	.9
85. I feel uneasy indoors.	True	.6
86. Even when I am with people I feel lonely much of the time.	True	.7
87. Policemen are usually honest.	False	.8
88. I am often said to be hotheaded.	True	.8
89. Lightning is one of my fears.	True	.5

Item	Offender Response	D-Value
90. The only miracles I know of are simply tricks that people play on one another.	True	.8
91. My plans have frequently seemed so full of difficulties that I have had to give them up.	True	.9
92. The future is too uncertain for a person to make serious plans.	True	.9
93. Often, even though everything is going fine for me, I feel that I don't care about anything.	True	.9
94. I have sometimes felt that difficulties were piling up so high that I could not overcome them.	True	.7
95. I often think, "I wish I were a child again".	True	.5
96. I am usually calm and not easily upset.	False	.6
97. Itmakes me feel like a failure when I hear of the success of someone I know well.	True	.6
98. At times I think I am no good at all.	True	.9
99. I feel hungry almost all the time.	True	.6
100. I worry quite a bit over possible misfortunes.	True	.5
101. I used to have imaginary companions.	True	.5
102. There are certain people whom I dislike so much that I am inwardly pleased when they are catching it for something they have done.	True	.5

Items	Offender Response	D-Value
103. It makes me nervous to have to wait.	True	.5
104. I have had periods in which I lost sleep over worry.	True	.5
105. I am bothered by people outside, on streetcars, in stores, etc., watching me.	True	.6
106. I like to poke fun at people.	True	.5
107. I have used alcohol moderately (or not at all).	False	1.0
108. In school my marks in deportment were quite regularly bad.	True	.8
109. I have one or more faults which are so big that it seems better to accept them and try to control them rather than to try to get rid of them.	True	.5
110. I feel like giving up quickly when things go wrong.	True	.6
111. I read in the Bible several times a week.	True	1.0
112. I have had periods when I felt so full of pep that sleep did not seem necessary for days at a time.	True	.5
113. I have a daydream life about which I do not tell other people.	True	.5
114. I cannot do anything well.	True	1.0
115. I have often felt guilty because I have pretended to feel more sorry about something than I really was.	True	.6

Item	Offender Response	D-Value
116. The future seems hopeless to me.	True	.9
117. It makes me angry to have people hurry me.	True	.5
118. Several times a week I feel as if something dreadful is about to happen.	True	.5
119. I like repairing a door latch.	False	.5
120. Sometimes I am sure that other people can tell what I am thinking.	True	.6
121. I sometimes feel that I am about ready to go to pieces.	True	.9
122. I have often been frightened in the middle of the night.	True	.5
123. I find it hard to set aside a task that I have undertaken, even for a short time.	False	.5
124. The hours at night seem long.	Yes	.9
125. School didn't bother me any more than the next guy, - or - I left school because I had enought of it.	Alternative Statement.	.6
126. Since leaving school I've averaged less than one job a year (or I haven't been out of school a year) - or - Since leaving school I have averaged more than one job a year.	Alternative	.9
127. I sometimes drink because it helps me to forget.	Yes	1.0

Item	Offender Response	D-Value
128. Being in a small closed-in space never bothers me, - or - Being in a small closed-in space makes me uneasy.	Alternative	.7
129. The few jobs I've had I've been very much interested in, - or - I've worked at all kinds of things.	Alternative	1.0
130. I prefer working my way up in one job - or - When I change jobs I like to go to another town.	Alternative	1.2
131. I like to stay put, - or - I've gone "on the bum".	Alternative	1.1
132. I am reckless, - or - I am calm.	first statement	.8
133. My family is somewhat disappointed in me - or - My family is fairly pleased with me.	first statement	1.3
134. I didn't waste my time hanging around after school, - or - I spent quite a bit of time in school activities.	first statement	.6
135. Have you bitten your nails since you were 15?	Yes	.7
136. Did your mother nurse you or were you fed "by bottle" as a baby?	"By Bottle"	.7

Item	Offender Response	D-Value
137. Do you think your parents were glad when you were born?	No	.9
138. Did you get along well with your parents?	No	.8
139. Did you prefer any one of the children in your family to all the others?	Yes	.5
140. Are you still quick tempered?	Yes	.5
141. Has your quick temper ever got you into trouble?	Yes	.5
142. Were you often sick as a child?	Yes	.5
143. Do you have much backache?	Yes	.5
144. Did you want to start to school?	No	.5
145. Did you find that you liked school?	No	.8
146. Did you find it easy to "put things over on your teachers"?	Yes	.5
147. Did you ever run away from home during your school years?	Yes	.5
148. Have you ever been in jail?	Yes	.7
149. Have you ever stayed drunk for a day or more?	Yes	.7
150. Is this the work you wanted to do when you came into the Active Force? (referring to trade or non trade qualifications)	No	1.1
151. In your opinion were you given a fair statement of what you might expect in the Army at the time you enlisted?	No	.9

On the basis of the percentages reported in connection with the descriptive data above, it would be possible to construct items, which could be used in an experimental inventory in addition to those reported to have D-values of .5 or more. Such items would make any experimental inventory more comprehensive than the 151 items, recorded above, but they would have to be tried on fresh samples to discover their D-values. The following items are considered worthy of a trial:

1. Do you prefer one parent to the other or did you prefer one to the other as a child?
2. Do you think your parents did not discipline you strictly enough as a child?
3. Were your parents separated or divorced or did they quarrel much?
4. Did you quarrel much with other children in the family?
5. Are you married or single?
6. Do you never attend church?
7. Did you repeat more than one grade in school?
8. Were you often late arriving at school?
9. Were you ever fired from a job or did you ever quit a job for no particular reason?
10. Did you ever belong to a gang, as a child or youth, that got into trouble with the police or school authorities occasionally?
11. Were you teased a lot as a child?
12. Did you feel badly often as a child because you believed your friends were better off than you or able to have many things you wanted and could not have?
13. Do you have a hobby at which you spend at least several hours a week?
14. Do you read at least six books a year?
15. Did you start to go out with girls when you were 16 years of age or less?
16. Did you first have intercourse at 18 years of age or less?
17. Do you have intercourse monthly or more frequently with several or many women if you are single, or more than once a year with several women, other than your wife, if you are married?
18. Have you been arrested more than once?
19. Do you become drunk once every few months or more?

SAMPLE CONTAMINATION

An examination of several case histories suggests that definitions chosen for "offenders" and "non-offenders" were responsible for the inclusion of certain individuals who, with different definitions in effect, might have been found in opposite groups. One case of an "offender" will illustrate what is meant.

The subject was a highly intelligent young man ("M" score of 171), married with one child. He had completed Grade 11 in eleven years and, while at school, he had taken a leading part in social activities and athletics. He had well defined adult social interests and hobbies and was "accepted" by a wide circle of friends. During the last war he served in action with distinction and held NCO rank. He did not have a single record of misconduct in over seven years' service. On the MMPI his T scores were all along the 50 line with the exception of the Hypomania scale, on which his score was 63. He was sentenced to detention for 21 days for using a vehicle without permission, his first offence. On the basis of his military record, his civilian background and his personality, the author would not classify the subject as a typical "offender" but the fact that he had committed an offence, which was punished by detention, caused him to be included in that group.

Similarly, some individuals with delinquent, and even adult minor criminal records, were members of the "non-offender" groups.

Reference is made to this point in respect of the choice of criteria in such studies. The contamination, so introduced, would tend to lower the significance of the differentiations between groups. Higher discriminative values might have been produced if other definitions had been used.

V

CONCLUSIONS

1. The two attitude scales called "Attitude Toward the Treatment of Criminals" were demonstrated to be of no assitance in differentiating offenders and non-offenders in the Army. This is true whether the scales are used as separate measures or whether their items are treated individually. It is assumed, therefore, that the scales would not be of use in identifying recruits, who would probably become offenders if they were enlisted.

2. An item analysis of all materials used in the study produced 151 items, which are considered sufficiently discriminative to use further in experimental form with fresh samples of subjects for validation purposes. To these 151 items it is considered desirable to add 19 new items based upon descriptive biographical material, which produced noticeable differences between the experimental and control groups.

The various D-values calculated for the individual items could be used as weighted scores in attempting to estimate "offender risks" at the enlistment point. Before attempting to make practical use of the information, however, the validity of the items and the reliability of the values must be assessed carefully.

3. The MMPI distinguishes between offenders and non-offenders to a statistically significant degree (Critical Ratio of 3 or over) on six scales and approaches significance on two other scales. It is submitted that this is evidence of a relationship between personal maladjustment and military misconduct. If this conclusion is correct the MMPI would be of value in the selection of recruits.

It is noteworthy that the "K" factor has not operated as the MMPI authors predicted, at least in the military field with the approach of this study. Further, it should be noted that the authors' "normals" differ from "non-offenders" to a significant degree, in respect of the "Pd" and "Ma" scales. It might be concluded that soldiers could be expected to differ in this regard from hospital visitors and outpatients from rural Minnesota. The physical conditioning, the healthy outdoor life, speaking generally, and the daily associations with

males, similarly conditioned, may set the soldier apart in relation to the two scales. Certainly further comparisons of data are necessary, however, before firm conclusions in this regard can be made. In the meantime the "Pd" scale, and the other five, will probably continue to differentiate offenders and non-offenders, the main concern of this study.

123 of the 151 items, referred to in paragraph 2, immediately above, are from the MMPI. The inventory, therefore, would appear to be of use in identifying offenders, either used in its complete form or with its more discriminative items removed to form another inventory. Permission from the authors would have to be obtained for the latter course of action. The shortened inventory would be applicable to the military field only in relation to its ability to differentiate offenders and non-offenders. It would appear that the complete MMPI might serve as a useful diagnostic tool in the hands of Army Personnel Officers to assist them in assessing personality traits generally. It has been concluded, therefore, that it would be wise to use the complete MMPI, together with discriminative items from the Biographical Questionnaire and the Personal Inventory "B", at least until further validation studies have been evaluated. The 28 discriminative items, together with the 19 untried items, referred to in paragraph 2, could form an inventory whose scores could be assessed in conjunction with the 123 MMPI items. Moreover, the complete MMPI, with its various scales, would be available for whatever purpose it proves satisfactory.

4. Certain limitations in connection with the present study should be noted:

(a) The possible effects of sample contamination, referred to under "Results".

(b) The possible influence, on the practical application of the results, which might be caused by the manner in which research data was gathered. To gain the cooperation of the subjects, every possible effort was made to preserve their anonymity. In future, at the enlistment point subjects could be assured that information obtained during clinical examination would be treated confidentially. In fact, that situation prevails today. If they knew

records associated with their names were maintained, however, a lesser degree of honesty in responses might be experienced. The author of this study tends to regard this possible influence as relatively unimportant. Recruits are accustomed to searching questions administered by experienced interviewers in the Army setting.

(c) The comparison of small samples (50 and 75), from this study, with larger samples to determine whether or not the small ones are representative is a poor substitute for dealing with large samples in the first place. Only by the validation of the results obtained here, using large samples representative of their respective groups, can this deficiency be remedied.

(d) Two extremes were considered in the study, the offender, who is caught committing an offence and is tried and punished, and the non-offender, who has not been in that kind of trouble. Ultimately, some effort should be made to distinguish between individuals, who belong to a lesser gradation of offender, and the non-offender. This study represents only a first and tentative step in the prediction of "offender risks".

(e) The possible application of the results of this peacetime study to a wartime situation is obscured by the variation in situational factors, which may be operating. Long separations from families and the stresses associated with danger affecting one's person are but two such variations.

(f) The critical ratio method of statistical analysis is not entirely valid, when applied to matched groups (22). However, care was taken not to draw conclusions on such evidence unless comparisons between the random group and the experimental group supported the conclusions.

(g) Precipitating factors in military misconduct have received insufficient attention in this study. It is believed that investigations into that field would be profitable from both the military and the strictly psychological points of view. Reference is made here to such probable influences as improper or inadequate orientation, employment, which is not commensurate with capabilities, failure to recognize individual differences and to base personnel management practices upon that understanding.

5. It might appear from the foregoing that the author was in search of some easy way to assess human beings and their behavior. It might be assumed that, by the adoption of the experimental inventory, the author hopes to make the prediction of military misconduct a simple and almost automatic procedure. Such is not the case. The study was undertaken to gather facts about military offenders and to attempt to devise one more objective measure of that extremely complex phenomenon, the human personality. Measures of that kind may assist the clinical psychologist or the personnel officer but they will likely remain merely aids, whose results must be synthesized, interpreted and applied by what has been called "subtler and more comprehensive psychological techniques".

VI

SUMMARY

1. Three groups of Army personnel, an experimental group, military offenders, and two control groups, non-offenders, were examined in an attempt to differentiate the two categories.

2. The control groups consisted of subjects matched with the offenders and a group chosen at random from the general non-offender army population.

3. The examination took the form of interviewers administering the Minnesota Multiphasic Personality Inventory, Personal Inventory "B", Attitude Toward the Treatment of Criminals, Forms A and B, and conducting an interview, which was recorded on a specially prepared Biographical Questionnaire.

4. Statistically significant differences were obtained with the MMPI, on 6 scales, and with 123 individual items. The attitude scales produced no significant difference. 28 discriminative items from the other two inventories were chosen to form a trial inventory with the 123 MMPI items. In addition, 19 new items were suggested by the author for inclusion.

5. The author concluded that it appeared possible to differentiate offenders and non-offenders combining the experimental inventory with clinical interviews.

6. Validation studies involving the use of the experimental inventory were suggested. Limitations of the present study and further research indicated by the study were discussed.

APPENDIX "A"

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APPENDIX "B"

HQ 121-65-16 (Org 10)

DEPARTMENT OF NATIONAL DEFENCE
Army

Ottawa, Canada.
15 Sep 48

Dean of the Faculty of Arts and Science,
University of Alberta,
EDMONTON, Alberta.

Dear Sir:

I wish to advise that Major. W.R.N. Blair has been granted authority to undertake an investigation in the field of Army delinquency, in connection with his postgraduate studies at the University of Alberta.

Major Blair, or other officers designated by him, will be permitted to conduct psychological tests and clinical interviews among personnel in military detention barracks and among the Army other rank population at large.

I would request that the research data gathered by Major Blair, and his representatives, and the final report on the investigation be treated according to the military security classification "Confidential".

Yours truly,

Signed: F.J. FLEURY, Col.
for (E.G. WEEKS),
Major-General,
Adjutant-General.

APPENDIX "C"

Introduction of Subjects to Testing Program

(Personnel Officers will repeat this statement, elaborating upon it only as required.)

I am one of several officers who are trying to find if possible what types of personalities are most likely to have difficulty getting along in the Army. We also want to discover if there is any relationship between the home, school and work background of a person and his ability to succeed as a soldier. Finally, we want to know what things in the Army cause soldiers to get into trouble.

Now, all of this covers a pretty big field. We had to make up a lot of questions to cover every possible angle. Maybe some of the questions won't apply to you. But we are convinced we must ask all of them in every case if we are to get the information we need.

We expect that we may be able to improve the treatment of soldiers, both good and bad conduct cases, as a result of our study.

Those of you, who are willing to help us by answering our questions, will be subjects in a scientific study. As such your names are of NO importance to us. We do NOT want to learn them. NO attempt will be made now or in the future to relate your names to the information you give us.

Your cooperation and truthfulness are of great importance. You can be sure that everything you tell us will be held in the strictest confidence. We would ask that you play ball with us, by keeping the questions to yourself. Please do not talk about them to anyone else.

If you will help us, on this understanding, we will be very grateful to you. If you do not wish to answer the questions, please tell me now.

APPENDIX "D"

PERSONAL INVENTORY (B)

Name _____

Following are some pairs of statements. Look at each pair, and if you think the one on the left describes you better, put a circle around the number on its left. But if you think the one on the right applies more to you, put a circle around the number on its right. Do every item. Even if you are not sure, mark the answer you think is nearest to the truth. Here are some examples (the first two have been done for you):

1.	Most days I eat some food.	I never eat at all.	1.
2.	I am more than eight feet tall. Yes.	. . . . . No.	2.
3.	I am a man.	I am a woman.	3.
4.	I am over 15 years old. Yes.	. . . . . No.	4.
5.	Most of my friends are luckier than I am.	I have my share of lucky breaks.	5.
6.	I like to take a chance.	I like to think things through before I do them.	6.
7.	I get embarassed easily.	I seldom get embarassed.	7.
8.	Drinking alone is usually a waste of good liquor. Yes.	. . . . . No.	8.

Go ahead with those that follow on the remaining pages as soon as you are told.

101. I graduated from high school. Yes.	. . . . . .No.	101.
102. I was a sickly child.	I was an active child.	102.
103. I have felt bad more from head colds.	I have felt bad more from dizziness.	103.
104. I seek excitement.	I avoid excitement.	104.
105. I like to have people do things my way.	I like to have people figure things out for me.	105.
106. I am more nervous.	I am more easy going.	106.
107. Somehow I never could find enough to do in my free time.	My free time always seemed to be filled.	107.
108. I wish I wouldn't feel so tired.	I wish I could have a more responsible job.	108.
109. I wish I could have more excitement.	I wish I weren't bothered by bad dreams.	109.
110. I wish I didn't have so many aches and pains.	I wish I wouldn't keep changing my mind.	110.
111. I wish I weren't so nervous.	I wish I wouldn't keep putting things off.	111.
112. I wish I could get myself to take more chances.	I wish worrying wouldn't make me sick to my stomach.	112.
113. I have more headaches than the average person. Yes.	. . . . . .No.	113.
114. The hours at night seem long. Yes.	. . . . . No.	114.
115. I like most any kind of food.	I have a poor appetite.	115.
116. After exertion I feel hungry.	After exertion I feel dizzy.	116.
117. When excited I feel weak.	When excited I feel stronger.	117.
118. I think I might like to watch a surgical operation sometime.	The sight of blood upsets me.	118.

119. My heart sometimes speeds up for no reason at all. Yes.		. . . . . No.	119.
120. I have never gone to a doctor for headaches or dizzy spells.		I have occasionally gone to a doctor for headaches or dizzy spells.	120.
121. School didn't bother me any more than the next guy.		I left school because I had enough of it.	121.
122. Since leaving school I've averaged less than one job a year (or I haven't been out of school a year).		Since leaving school I have averaged more than one job a year.	122.
123. I left school because I preferred working to studying. Yes.		. . . . . No.	123.
124. When I'm excited or upset I feel sweaty.		When I'm excited or upset I don't show it much.	124.
125. When I get excited I find it hard to talk straight.		When I get excited I talk better than I usually do.	125.
126. I usually like to go to bed.		Sometimes I dread going to bed.	126.
127. I sometimes faint for no good reason. Yes.		. . . . . .No.	127.
128. I sometimes drink because it helps me to forget. Yes.		. . . . . No.	128.
129. I wish my feelings weren't so easily hurt.		I wish I had more time to spend with my friends.	129.
130. I've always been somewhat uneasy.		Nothing ever bothers me.	130.
131. I sometimes get confused without any apparent reason. Yes.		. . . . . No.	131.
132. You have to worry more about heart trouble than most people think. Yes.		. . . . . No.	132.

133.	As a boy I had my share of cuts and bruises.	I had my share of dizzy spells as a boy.	133.
134.	As a child I had nightmares. Yes.	. . . . . No.	134.
135.	I have never had a head injury.	I have had a head injury.	135.
136.	I stopped school before I got to high school. Yes.	. . . . . No.	136.
137.	I repeated a grade in school. Yes.	. . . . . No.	137.
138.	I've had my share of backaches, headaches, and stomach aches. Yes.	. . . . . No.	138.
139.	Being in a warm room makes me drowsy.	Being in a warm room makes me dizzy.	139.
140.	I have felt bad more often from colds.	I have felt bad more often from nausea.	140.
141.	I have sometimes wet the bed (urinated) since the age of 10.	I have never wet the bed since the age of 10.	141.
142.	I had an unhappy childhood.	My childhood was happy.	142.
143.	I've had my share of sickness.	I've had my share of happiness.	143.
144.	Before entering the armed forces I have gone to a doctor or a hospital for my nerves.	Before entering the armed forces I have never gone to a doctor or a hospital for my nerves.	144.
145.	People talk to each other too much about things that concern me.	People are open and frank with me.	145.
146.	Has anyone in your family ever gone to a doctor or hospital for nervousness? Yes.	. . . . . No.	146.

147. Being in a small closed-in place never bothers me.	Being in a small closed-in place makes me uneasy.	147.
148. Did you ever wake up and find your finger bitten? Yes.	. . . . . No.	148.
149. Have you ever had a convulsion (fit)?. Yes.	. . . . . No.	149.
150. Have you ever been arrested for anything other than a traffic violation? Yes.	. . . . . No.	150.
151. In school the other boys went their way and I went mine.	I was happiest when I was with the gang.	151.
152. I am somewhat disappointed in my family.	I am proud of my family.	152.
153. I'm very careful to take medicine when I need it.	Most people aren't as sick as they think they are.	153.
154. Being up in high places never bothers me.	I feel uncomfortable about being in high places.	154.
155. I can't think straight when I am mad.	I think better when I am mad.	155.
156. I think being afraid is worse.	I think lying is worse.	156.
157. I wish I could have more responsibility.	I wish I wouldn't worry so much.	157.
158. I got my first steady job (or entered the services) within four months after leaving school. Yes.	. . . . . No.	158.
159. I was a sensitive kid.	I was a happy-go-lucky kid.	159.
160. Something makes me say and do things I don't mean.	I can get along in most any situation.	160.
161. The few jobs I've had I've been very much interested in.	I've worked at all kinds of things.	161.

162. I prefer working my way up in one job.	When I change jobs I like to go to another town.	162.
163. In civilian life I would rather be a mechanic.	In civilian life I would rather be a florist.	163.
164. I like to stay put.	I've gone "on the bum".	164.
165. I wish I had more responsibility.	I wish I had more self-confidence.	165.
166. I am reckless.	I am calm.	166.
167. My family is somewhat disappointed in me.	My family is fairly pleased with me.	167.
168. I didn't waste my time hanging around after school.	I spent quite a bit of time in school activities.	168.
169. In school I like to be by myself.	In school I preferred to be with a gang.	169.
170. Have you bitten your nails since you were 15?		170.
Yes.	. . . . . No.	
171. Have you ever been sent to jail or reform school?		171.
Yes.	. . . . . No.	

APPENDIX "E"

ATTITUDE TOWARD THE TREATMENT

OF CRIMINALS

FORMS "A" and "B"

INSTRUCTIONS FOR BOTH FORMS:

This is a study of attitudes toward the treatment of criminals. On the following page you will find twenty statements expressing different attitudes toward the treatment of criminals.

Put a check mark ( ) if you agree with the statement.

Put a cross (X) if you disagree with the statement.

If you cannot decide about a statement, you may mark it with a question mark.

This is not an examination. People differ in their opinions about how criminals should be treated.

Please indicate your own attitude by a check mark when you agree and by a cross when you disagree.

FORM "A"

( ) 1. Whether a person should be punished or not depends on his offense.

( ) 2. All criminals are victims of circumstance and deserve to be helped.

( ) 3. No leniency should be shown to criminals.

( ) 4. We need punishment to defend society.

( ) 5. Petty offenders can be reformed without punishment.

( ) 6. Punishment is never justified.

( ) 7. A criminal will go straight only when he finds that prison life is hard.

( ) 8. Society gains more by reforming its offenders than by throwing them into jail.

( ) 9. Intense physical pain is the only way to make people fear the law.

( )10. Failure to punish the criminal encourages crime.

( )11. The occasional offender deserves special corrective treatment.

( )12. Punishment of criminals is a disgrace to civilized society.

( )13. Criminals must be punished.

( )14. A combination of education and punishment is the best method of treating criminals.

( )15. Justice demands the punishment of criminals.

( )16. Corrective measures are just as necessary as punishment.

( )17. Correction is civilized; punishment is brutal.

( )18. More severe punishment of criminals will reduce crime.

( )19. Some punishment is necessary in dealing with the criminal.

( )20. Prison influence is degenerating.

( ) 1. A criminal should be first punished and then reformed.

( ) 2. Corrective measures for criminals are imperative in an enlightened age.

( ) 3. Severe punishment of criminals is the only way to prevent crime.

( ) 4. It is fair for society to punish those who offend against it.

( ) 5. Society often loses a useful citizen in imprisoning the chance offender.

( ) 6. We should abolish all of our penal institutions.

( ) 7. Lawlessness in this country is due to insufficient punishment.

( ) 8. Correction is more effective than punishment in preventing crime.

( ) 9. Only by extreme punishment can we cure the criminal.

( ) 10. So-called scientific treatment of criminals does not stop crime.

( ) 11. Occasional offenders should be reformed.

( ) 12. It is wrong for society to make any of its members suffer.

( ) 13. One way to deter men from crime is to make them suffer.

( ) 14. Some criminals should be punished; others should be given another chance.

( ) 15. We should not consider the comfort of a prisoner.

( ) 16. The circumstances of each crime should determine the treatment of the criminal.

( ) 17. Only humane treatment can cure criminals.

( ) 18. Persons who offend against society deserve no pity.

FORM "B"

( ) 19. The effectiveness of punishment or correction depends upon the individual criminal.

( ) 20. Harsh imprisonment merely embitters a criminal.

APPENDIX "F"

BIOGRAPHICAL QUESTIONNAIRE

Now I am going to ask you quite a number of questions about yourself. Some of the questions will be about your childhood. Maybe all you will know about some of them will be what your parents or others have told you. In any case please answer the questions as completely and truthfully as you can. Some of the questions may seem a little queer to you but I would like you to answer them as carefully as any others. Remember that the answers you give me will be treated in the strictest confidence. I will not refer to you by name at any time in this report so your name and your answers can never be related by anyone.

1. Personnel Officer record "M" score here. Form _____ Fr or Eng ____ Total ____ Sub tests ___ ___ ___ ____

2. In or near what village, town or city and in what province did you spend most of your life before you enlisted?

3. Give the date of your birth. Day ___ Month ___ Year ___

4. What is your racial origin? (Circle appropriate description).

   Anglo-Saxon (English, Scotch, Welsh, Irish and Descendents)
   French-Canadian
   European - All continental European races, including the Russian group and Semetic.
   Others.

5. What is your religion?

   Circle the appropriate answers where applicable.

6. Are both your parents living? Yes No

7. Which parent is dead? Father Mother Both

8. Of what illness did either or both parents die? Father Mother

9. How old were you when your parent (s) died?

10. How many brothers and sisters have you (incl. deceased) and what are their ages? Brothers ___ Ages _____ Sisters _____ Ages _____

11. Were you born at home or in a hospital? Home Hospital

12. Did your mother nurse you or were you fed "by bottle" as a baby? Nursed Bottle

13. Do you think your parents were glad when you were born? Yes No Uncertain

14. Which parent did you like best? Father Mother No difference

15. If your parents are living, are they in good health? Father _____ Mother _____

16. If not, of what illness does either suffer? Father _____ Mother _____

17. Are your brothers and sisters in good health? Yes No

18. If not, what is wrong with them? Brothers _____ Sisters _____

19. Did any member of your family or a close relative ever

have fainting spells?	Yes	No
have a nervous breakdown?	Yes	No
have fits?	Yes	No
have to go to a mental hospital?	Yes	No
Commit suicide?	Yes	No
go to jail? (What for?)	Yes	No
drink too much?	Yes	No
become an invalid? (Why?)	Yes	No
appear in court on charge? (Why?)	Yes	No

20. Were your parents ever separated for a long period? Yes No

21. If so, what was the reason?

22. Were your parents divorced? Yes No When?

23. Did your parents quarrel a lot? Yes No

24. If you know why, state the reason.

25. Did you get along well with your parents? Yes No

26. If not, which one did you have differences with? Father Mother Both

27. What was the trouble, in your opinion?

28. Were your parents too strict with you, not strict enough or did they handle you fairly well?

29. How did your parents discipline you?
    Whipping? Yes No
    Making you do without things? Yes No Without what?
    Reasoning with you? Yes No
    Any other punishment? Yes No What?
    No attempt to discipline you? Yes No

30. By whom were you raised?
    Your own father and mother? Yes No
    Step-parents? Yes No
    Foster parents? Yes No
    Other relatives or persons? Yes No
    (State relationship to you)
    Others? (Specify)

31. Did you often feel that the persons who raised you did not like you or want you? Yes No (What made you think this?)

32. Do you think you received favored treatment from those who raised you in relation to other children in the home?
    Yes No (In what way?) (By whom?)

33. Were you "picked on" by those who raised you more than the other children in the home were? Yes No
    (In what way?) (By whom?)

34. Did the children in the home quarrel often amongst themselves? Yes No

35. Were you teased a great deal
    at home?
    at school?
    outside?

36. Why do you think you were teased a great deal?

37. Did you not get along with any one of the children at home?
    Yes No Why?

38. Did you prefer any one of the children to all the others?
    Yes No Why?

39. What did your father (or the person who raised you) do for a living? Estimate his yearly income.

40. Did your mother work too? At what?

41. Did your parents own their home or pay rent?
How much rent did they pay per month?

42. Was your father (or the person who raised you) regularly employed? Yes No If not, state why?

43. Did you want many things as a child which your family could not buy? Yes No If yes, state what.

44. Did you get a regular spending allowance? Yes No
How much per week?

45. Did you earn money yourself as a child? Yes No
How?

46. Did you feel that your friends were better off than you?
Yes No In what way?

47. Where did you live as a child?
Farm
Village
Town
City

48. Before you started to school, did you play mostly alone?
Yes No
with one or two other friends? Yes No
with a gang of friends? Yes No

49. If you played with more than one friend,
were you able to get them to do what you wanted?
Yes No
did you have to do what they wanted? Yes No

50. Were your friends mostly
older than you? Yes No
younger than you? Yes No
about the same age? Yes No

51. Would you say that you and your friends were tougher than other kids in the neighborhood? Yes No
Why would you say that?

52. How old were you when you first
walked?
talked?

53. At approximately what age did you stop wetting the bed?

54. Did you stutter as a child? Yes No At what age did you stop?

55. Did you bite your nails? Yes No At what age did you stop?

56. Did you have "temper tantrums" as a child? Yes No

57. Are you still quick tempered? Yes No

58. Has your quick temper ever got you into trouble? Yes No

59. Were you often sick as a child? Yes No

60. What serious illnesses did you have as a child?

61. Have you ever been knocked out? Yes No

62. Was this because of a blow on the head? Yes No

63. Has sickness interfered with your work? Yes No
To what extent?

64. Have you ever had a skull fracture? Yes No

65. Have you ever had a sickness during which you had a high fever for a long time? Yes No If you can do so, name the illness.

66. In relation to your present health will you answer the following:

(a)	Do you have fainting spells?	Yes	No
(b)	Do you have a great many headaches?	Yes	No
(c)	Do you have dizzy spells?	Yes	No
(d)	Do you have much backache?	Yes	No
(e)	Do you have much stomach trouble?	Yes	No
(f)	Do you have heart trouble?	Yes	No
(g)	Do you have rheumatism?	Yes	No
(h)	Do you have kidney trouble?	Yes	No
(i)	Do you tire easily?	Yes	No
(j)	Do you sleep poorly?	Yes	No
(k)	Are you often on sick parade? What for?	Yes	No

67. Do your nerves trouble you? Yes No

68. Have you ever had to go to bed because of a nervous breakdown? Yes No If so, at what age?

69. How long did this attack last?

70. What do you think caused it?

71. Did you ever get so "down in the dumps" you couldn't work?
Yes No.

72. Did you want to start to school? Yes No Why or why not?

73. At what age did you start?

74. At what age did you finish?

75. What grade did you complete?

76. Did you repeat any grades? Yes No If so, state what ones and why.

77. What kind of school did you attend?
public
separate
one room
more than one room

78. Did you find that you liked school? Yes No

79. Where did you generally place in the class standings?
first
in the top few
in the middle
in the bottom few
last

80. Did you feel that you were better dressed

than most of the pupils?	Yes	No
as well dressed as most?	Yes	No
less well dressed than most?	Yes	No

81. How did you like reciting or reading or working on the blackboard before the other pupils?
Didn't like it?
Did not mind it?
Liked it?

82. Did you find it easy to "put things over on" the teacher?
Yes No

83. Were you punished
more than
about the same as
less than
the other pupils?

84. Were you ever suspended or expelled from school? Yes No
Why?

85. Did you attend school regularly? Yes No If not, why not?

86. Did you arrive late at school
more than
about the same as
less than
the majority of the pupils?
Why?

87. Did your parents punish you for poor attendance at school?
often
sometimes
seldom
never

88. Do you worry about your parents because of their
finances?
health?
relationships with one another?
for any other reason? (State what)

89. If you got into trouble with the teachers did your parents
"side with you?
"side" with the teachers?
let the matter "drop"?

90. Do you think that
most
some
none of the teachers like you?

91. Did you like
most
some
none of your teachers?

92. Did you have
more friends than most
about the same number as most
less than most
at school?

93. During recesses how did you spend your time?
Reading?
Doing other things in the school by yourself?
Playing with one or two friends?
Playing with a group of friends?

93A. After school hours did you play
mostly alone?
mostly with one or two friends?
mostly with a gang of friends?

94. During your school years, if you played with more than one friend,
were you able to get them to do what you wanted? Yes No
did you have to do what they wanted? Yes No

95. During your school years were your friends mostly
older than you?
younger than you?
about the same age?

96. At about what age did you start "going out" with girls?

97. At about what age did you first learn about sexual intercourse?

98. From whom did you learn?

99. What is your marital status?
Single
Married (legally)
Married (common law wife)
Widowed
Married but separated
Divorced

100. How many children do you have?

101. How many years did you know your wife before you were married?

102. At about what age did you first have sexual intercourse?

103. In general, if you are or have been married, about how often did you have intercourse before marriage?
Frequently (once or more a month)
Sometimes (twice a year or less than frequently)
Seldom (once a year or less)
Never

104. Was this with one person, several or many?

105. If you are not married or have not been married, how often have you had intercourse since you were 14?
Frequently)
Sometimes)
Seldom) Defined as in No. 103
Never)

106. Was this with one person, several or many?

107. If you are married, state how you get along with your wife?
Very well
As well as most married people
Not too well
Not at all

108. If you do not get along very well, state what you think the reason is?

109. If you are married, state how often you have had intercourse with women other than your wife?
Frequently)
Sometimes)
Seldom) Defined as in No. 103
Never)

110. If you are married, state whether you would like to be separated. Yes No Conditional (or what?)

111. How many times have you had intercourse with prostitutes?
Frequently)
Sometimes)
Seldom) Defined as in No. 103
Never)

112. Have you ever had VD? Yes No

113. If you had VD, what kind was it and where did you pick it up?

114. How many times have you been arrested?
1
2-5
6-8
9 and over
Never

115. For what offences have you been arrested?

116. Did you ever run away from home during your school years?
Yes No

117. If you have run away from home, state the reason.

118. How many years have you spent in an industrial home or a reform school?
1 year
2-5 years
6-8 years
More than 8 years
None

119. If you have been in an industrial home or a reform school, what was the nature of your offence(s) and why do you think you committed it (them)?

120. Have you ever been in jail? Yes No

121. If you have been in jail what was the nature of your offence(s) and why do you think you committed it (them)?

122. Do you drink beer, hard liquor or both?

123. How often do you get drunk (so that you don't know what you are doing)?
More than once a week
About once a week
Once every few months
Very seldom
Never

124. Have you ever stayed drunk for a day or more? Yes No
How long?

125. What clubs have you belonged to?
During school years
After leaving school

126. Did you take a leading part in the club(s)? Yes No
If so, in what way?
If not, why?

127. State how often you attend church?
Regularly (every week)
Sometimes (more than once a month but not regularly)
Seldom (less than once a month)
Never

128. State how often your father attends (attended - if deceased) church.
Regularly)
Sometimes)
Seldom) As defined in No. 127, above
Never)

129. State how often your mother attends (attended - if deceased) church.
Regularly)
Sometimes) As defined in No. 127, above
Seldom)
Never)

130. What was your main occupation before you enlisted?

131. How long were you at that work?

132. How many employers did you have during that time?

133. What other jobs did you have and for what periods?

134. Did you like your major occupations? Yes No If not, why not?

135. Did you do your work well? Yes No If not, why not?

136. Why did you chage jobs? (Suggestions - to get more pay? Fired? Quit without any particular reason?)

137. Did you get along satisfactorily with most, some, or none of your employers?

138. What work did you do after school? during vacations?

139. Do you think you had to work too hard for the pay you got? Yes No

140. If you could take any training you want, what kind of job would you choose in civilian life?

141. In your spare time, since leaving school, have you
kept pretty well to yourself?
associated with one or two friends?
"gone around" with a group?

142. What are your favorite spare time activities, including any hobbies you may have?

143. Do you spend much (some or none) of your spare time reading?

144. Name your favorite paper _____ favorite magazine _____

145. Name the last three books you read.

146. What is your favorite reading?

147. Why did you enlist in the Active Force? (Interviewer to repeat all before calling for an answer) (Circle appropriate letter)
   (a) Was it because you were unable to find satisfactory employment in civilian life?
   (b) Did you enlist to get away from your family?
   (c) Was it because of the security offered?
   (d) Was it because you wanted to learn a trade?
   (e) Was it because certain members of your family with military service influenced you?
   (f) Did you feel that it was your responsibility to do so?
   (g) Was it for any other reason? If so, specify.

148. If you had any previous military service before enlisting in the Active Force, please state.
   (a) What force or service.
   (b) What the periods of service were in each.
   (c) What your major employment was.
   (d) What your trade or non-trade qualifications were.
   (e) Whether you were overseas or not.
   (f) Whether you were called for service or volunteered.
   (g) What your highest rank was in each case and when you held it.
   (h) Whether you had any crimes.
   (i) Whether you were ever in detention before and what for.
   (j) Whether - apart from crimes for which you served in detention - you had to forfeit pay, and if so, approximately how many days.
   (k) What your reasons were for any of the crimes you have described.

149. When did you enlist in the Active Force?

150. State briefly what you have done in the Active Force since your enlistment over the periods recorded below. State if you were in detention or hospital during any period. State courses taken and your employment in detail.

1 OCT 46 - 31 DEC 46
1 JAN 47 - 31 MAR 47
1 APR 47 - 30 JUN 47
1 JUL 47 - 30 SEP 47
1 OCT 47 - 31 DEC 47
1 JAN 48 - 31 MAR 48
1 APR 48 - 30 JUN 48
1 JUL 48 - 30 SEP 48

151. What is your present trade or non-trade qualification?

152. Is this the work you wanted to do when you enlisted in the Active Force? Yes No

153. If not, what did you want to do?

154. Why do you think you did not get that type of work?

155. Do you get enough time to do your work as well as you would like? Yes No

156. What was the attitude of your parents to your enlistment in the Active Force?

(a) Did they oppose you? Yes No
(b) Were they enthusiastic? Yes No
(c) Did they seem not to care? Yes No
(d) If none of the above, specify.

156A. Will you apply for re-engagement when your present term of enlistment expires? Yes No State why you have made that decision.

157. In your opinion were you given a fair statement of what you might expect in the Army at the time you enlisted? Yes No

158. Did anyone make promises to you, or seem to make promises, which were not kept? Yes No If so where were the promises made and what were they?

(Note to Interviewer: The remaining questions will be asked only of those personnel in detention).

159. What precisely was your job at the time you got into trouble?

160. What was the name of your unit and/or detachment?

161. Did you get along well with most, some or none of the following

members of your unit?
the officers?
the NCOs?
the Other Ranks?

162. Was there any particular member(s) of the unit who "had it in" for you? Yes No Don't think so. If so, was it
an officer or officers?
an NCO or NCOs?
an Other Rank or Other Ranks?

What made you think so?

163. What was the nature of the "charge" which resulted in your sentence to detention? (AWL, insubordination, etc.)

164. Do you think you deserved what you got? Yes No

165. For what period were you sentenced?

166. Tell me why you think you got into trouble?

167. During your entire military career approximately how many times have you "been up before" your C.O.?

168. How many times have you been in detention or in field punishment?

169. What do you want to do when you get out of detention? (Circle appropriate letter.)
(a) Get out of the Army?
(b) Change units?
(c) Change employment?
(d) Others?

170. Describe what you generally do in a day here in detention.

Morning

Afternoon

Evening

171. What suggestions would you make regarding improvements?

172. Do you think that your experience in detention will keep you out of trouble in the future? Yes No Not sure. State why you hold that view.

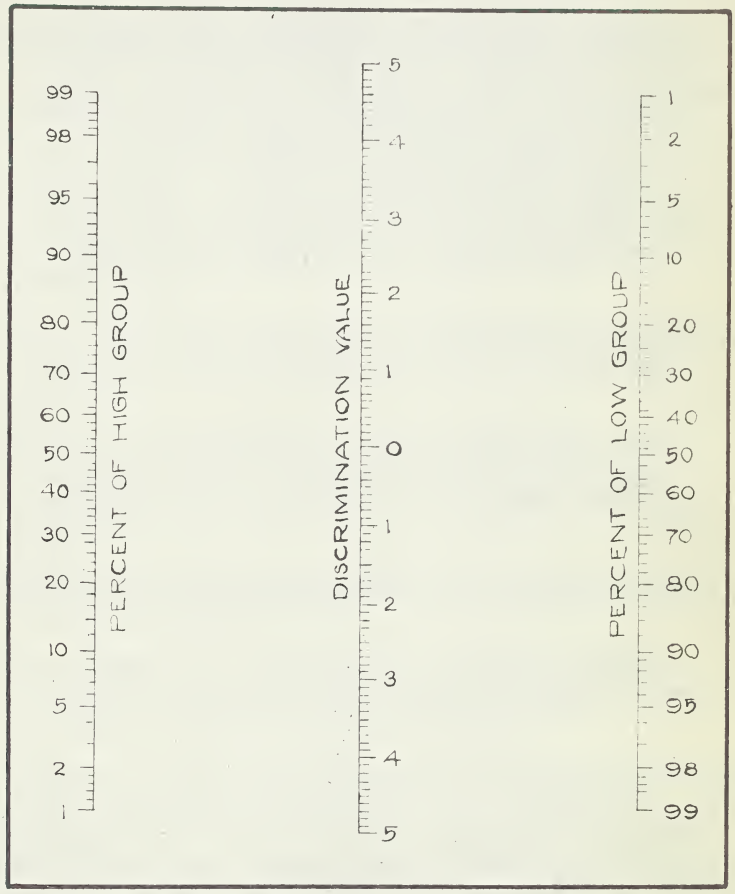
NARRATIVE REPORT BY INTERVIEWER

(Comment regarding the characteristics and behaviour of the subject during interview. Specify any questions which did not seem to be phrased in a manner understandable to the subjects.)

Note to Interviewers:

Before dismissing the subject repeat the assurance that his identity will not be disclosed in relation to any answer given. Thank him for his cooperation in assisting the Army to gain a better understanding of soldiers who may get into trouble.

APPENDIX "G"



A Nomograph for Estimating the Validity of Test Items by the Kelley Technique.

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THE LAWSHE NOMOGRAPH AND THE KELLEY TECHNIQUE

Truman L. Kelley is credited with the development of a special technique for estimating the discriminative value or validity index of inventory or test items. This technique, in its successive stages, may be described briefly as follows:

1. Determine the percentage of successful responses to a given item by members of the "high" criterion group. ("Successful responses" and "high criterion group" may be chosen arbitrarily. For example, a "successful response" could be regarded as all the "True" answers in a True-False inventory. Similarly, the "high criterion group" could be either the experimental or the control group in a comparative study of, for example, military offenders.)

2. Determine the percentage of successful responses to a given item by members of the "low" criterion group.

3. Using the appropriate normal probability curve tables, find the standard score value of the ordinate which subtends the percentage found in Step 1.

4. Find the corresponding value for the percentage found in Step 2.

5. Determine the discriminative value or validity index by subtracting the result obtained in Step 4 from the result obtained in Step 3.

Lawshe decided to try to simplify this procedure because of the labor involved in analysing several hundreds of items. His "nomograph" is the result of his efforts. Use of the nomograph reduces the time necessary to estimate discriminative values and the results have shown that the method is adequate in terms of accuracy.

Three scales form the nomograph. The two outer scales range from 1 to 99, in reverse order. These are the percentage scales, on which the percentage of successful responses for the two criterion groups are located. The center scale ranges from 0 in the centre to 5 at the top and bottom. D-values or discriminative values are read off this center scale by placing

a ruler on the two percentages located on the outer scales and noting where the ruler passes through the center scale. Values above the 0 are plus values and those below are minus values. In terms of inventory responses of the True-False variety, a plus value simply means that the high criterion group gave more successful responses than the low criterion group. The reverse is true in the case of minus values. By noting whether the values are plus or minus, it is possible to see quickly what constitutes a significant answer.

The highest possible discrimination values are obtained when 99 percent of one group and only 1 percent of the other give a "successful" response to any given item. If any item so identifies 99 percent of both groups, the discrimination value would be zero. Authors of inventories and tests must decide at what D-value they are going to reject items, selecting those which are most discriminative.

*

Summarized from
"A Nomograph for Estimating the Validity of Test Items", an article by C.H. Lawshe in the Journal of Applied Psychology, 1942, pp. 846-849.

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